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THE AMERICAN HISTORY AND ENCYCLOPEDIA OF MUSIC

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COURT THEATRE, WEIMAR

The Weimar Court Theatre is one of the many attractions of the residence town of the Grand Dukes of Saxony, which appeals not only to the musician but to men of letters and of art. It has been the home of such an unusual number of gifted people that it has gained the name of the "Athens of the Ulm." The Grand Duchess Anna Amalia, who was regent from 1759 to 1775, gathered about her such men as Goethe and Schiller in an effort to surround her son, Carl August, with the best possible influences.

Every inch of ground is connected with incidents in the lives of these men, and it was in the home of Liszt that Wagner found refuge from the Prussian soldiers in 1849. The Conservatory with which Liszt was connected is also of importance, historically, and has had much influence over the musical activity of the theatre, which was the first place that accepted Wagner and produced his musical dramas.

THE AMERICAN HISTORY AND ENCYCLOPEDIA
OF MUSIC

THEORY OF MUSIC

WITH

INTRODUCTIONS
BY
W. L. HUBBARD
EMIL LIEBLING
AND
W. J. HENDERSON

ARTHUR FOOTE
EDITOR

IRVING SQUIRE
New York

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INTRODUCTION

W. L. HUBBARD.

A lengthy prefacing of the American History and Encyclopedia of Music is scarcely necessary. "Good wine needs no bush," and so a good book needs no extended statement of the reason for its making. It is believed and hoped that the volumes here presented to the public will contain within themselves ample justification for their being and their issuance. If they do not, then, no amount of preliminary explaining and excusing will win for them favor and the right to live. They must stand by themselves and it is felt that they will.

The first idea of the work sprang from the desire of a gentleman to inform himself on certain musical points. He, like a large majority of the men and women of this country, is a sincere lover of music, but has been able to devote little or no time to the study of the science and the art themselves. Wishing, however, one day to learn concerning certain happenings in musical history, and certain facts of musical theory, he consulted such books as were at hand. and while he found that the historical information was obtainable — although in several instances only after search through varied and sometimes very rare volumes — the theoretical parts when discoverable were as a rule couched in language so technical that it was virtually unintelligible to him. In his perplexity he addressed a letter to the music department of the Chicago Tribune, stating his dilemma, and asking my advice as to some book on theory that " was in English such as a non-musical person could understand." My inability to refer him to such a work, gave rise to the first concept of the American History and Encyclopedia of Music. The need was realized of creating a work which would serve as a means of instant and satisfactory reference, in which the information would be immediately and conveniently at hand and in which the information when obtained would be expressed in language that was intelligible to the man who understands English but who has not the time to master the technical phraseology of music. Despite the incredulity, expressed or implied, of certain learned authorities, it was believed that the English language is ample enough, accurate enough, and clear enough to make possible the stating of musical facts in terms not technical, and that if musicians well enough informed concerning their art and sufficiently in command of the English language to write simply and clearly of what they knew could be found, the making of the Encyclopedia would be possible. These, the endeavor was made to discover, and gradually it was possible to assemble from some half-dozen cities and towns a corps of researchers and writers such as were needed. The securing of men to whom the directing of the collecting of material could be entrusted then followed and the preparation of the work began. This was more than two years ago and since that time from six to twenty persons have been steadily engaged in gathering the facts and preparing the material for the Encyclopedia.

As soon as the plan began to shape itself, the decision was reached to make the work representatively American. While the whole range of national music and history was to be covered the Encyclopedia itself was to be the product of purely American labor. The introductory essays that were to preface each volume were to be written by men who had accomplished practical results in the field of American music and who were recognized as identified with the progress that is being made along all musical lines in this country. With this end in view, arrangements for articles were made with Professor Frederick Starr of the University of Chicago, whose knowledge of the music of barbaric and semi-civilized peoples is wide and authoritative; with George W. Chadwick of Boston, who stands as one of the foremost and most significant of American composers, and whose familiarity with the development of creative music in the United States peculiarly fits him to write of our native composers; with Frederick A. Stock, whose position as leader of the Theodore Thomas Orchestra of Chicago and whose compositions qualify him to speak with positiveness of the formation and growth of the modern orchestra; with H. E. Krehbiel, music editor for many years of the New York Tribune, and whose criticisms, annotations, prefatory essays, and books, while covering the whole range of music, have been in many instances devoted solely to consideration of opera and music drama and who is peculiarly suited, therefore, to write of opera and its development; with Dr. Frank Damrosch of New York, whose extended and in certain respects pioneer work in connection with the teaching of music in the public schools warrants him in writing authoritatively on that subject; with W. J. Henderson, the New York music editor, author, and pedagogue, whose long research into the history of vocal art qualifies him especially to discuss that line of musical art and its history; and with Emil Liebling of Chicago, whose position as teacher, pianist, lecturer and litterateur lends weight and positiveness to his statements relative to the evolution of piano technique and its application.

To these were added, as supervising editors of certain volumes, Arthur Foote of Boston, whose compositions and whose book on harmony make him especially valuable as editor of the volume which has been prepared on musical theory and harmony; Professor George W. Andrews of Oberlin Conservatory, who was chosen because of his thorough knowledge of instruments to superintend the preparation of the volume upon that subject; and Professor Edward Dickinson also of Oberlin, Ohio, whose writings on the history and development of church music fit him to direct the collecting of material for the volume on Oratorios and Masses.

In the gathering of material the aim has been not so much to produce that which is original as to bring together that which is complete, comprehensive and sufficiently established to be recognized as authoritative. The desire has been to make first of all a work of reference with everything so arranged and systematized that any and all facts will be instantly obtainable, to bring into one set of books an encyclopedic covering of the whole range of music and its history, and to present all this in language so clear, so free from technicality and so exact that every reader who has a fair comprehension of English will be able to secure reliable, definite and reasonably complete information on any point he may desire. That exhaustive treatment of any one branch or subject has been impossible, is of course understood — the limits of the volumes and the scope of the field covered render this out of the question, but the aim has been to bring into the books all essential and fundamental facts and so to systematize, order and present them that all the informative matter that the layman or the average student of music may require will be at their disposal. The volume on Foreign Music will be found to contain sketches of the development and history of music in all the principal countries, civilized and semi-barbaric, of the world, many of the sketches having been prepared by natives of those countries, and presenting facts and data not contained in any other works on the subject. In the two volumes on Opera the endeavor has been to outline the story, note the most striking musical numbers, and give the date and place of first production of all the operatic works now included in the present day repertory. A greater number of operas are thus described than are to be found in other volumes of similar nature, and several of those most recently produced have been given place in the list. The volume on Oratorios and Masses is carried out on the same lines as are those on Opera, and to it is added a consideration and description of the principal masses and anthems now in use — an undertaking not before attempted. The volume on Instruments lists and describes over six hundred musical instruments, their origin, their use and their appearance. In the volumes of Biographies, the live facts have been retained, the aim having been to prepare a work that would supply information concerning not only the men and women who left their impress upon music in the past but also concerning those who are active in the work today. Over one thousand letters of inquiry were sent to musicians and much of the material contained in the volumes will be found to be autobiographical in character, and therefore accurate and authoritative. In the volume on American Music it has been the wish to supply a complete outline of the unfoldment and progress of music in the United States. Much of the material has been obtained only after long and difficult research through newspapers, magazines and scattered volumes on the subject. It is believed that so comprehensive and accurate an outlining of music in this country has not before been accomplished. In the volumes on Musical Terms and on Theory an undertaking wholly unique has been made. To translate into simple, clear English the many technical words and phrases employed in music and to perform a similar service for the various musical forms and rules that go to make up musical theory and composition is a task which no writer or group of writers heretofore has had the courage to attempt. It has been undertaken in the present instance, and has involved the solving of many intricate and vexatious problems. It has been pioneer work in the field, and while there are recognized shortcomings in the resultant volumes, the task in the main has been performed even more successfully than the promoters of the work had dared to hope.

That the American History and Encyclopedia of Music will be found to possess certain weak spots and even faults is not unexpected. It lies in the nature of the work itself, but the assurance can be given that every effort has been made to produce a work that is reliable, intelligible and dignified and if it result in a wider understanding and a keener, truer appreciation of music then its promoters and editors will be well content.

DEVELOPMENT OF PIANOFORTE TECHNIQUE

EMIL LIEBLING.

The practical development of the technique of piano playing, i. e., the successful mastery of all difficulties which the execution of the most exacting compositions for the instrument entails, properly begins with the era of Johann Sebastian Bach, and in order to fully realize the gradual growth it is necessary to connect the solution of the problem with the corresponding evolution in the art of piano building, for the executants of successive ages necessarily depended upon the instrument for the medium through which the increased possibilities of digital skill could be demonstrated. In 1710 and 1729 Cristofori and Schröter produced pianos which to all intents and purposes represented our modern instruments in form and construction and at the end of the same century the Silbermanns of Freiberg and Strassburg, and Stein of Augsburg built excellent examples of the art. At the beginning of the Nineteenth Century Broadwood of London, Érard at Paris and the Viennese builder, Streicher, made improvements which permitted a more musical and poetic tone quality and brought the mechanism to a high state of perfection. Since then piano building has become universal and has found its highest development in the United States.

Previous to Bach's advent the performer used straight fingers and played at the very edge of the keyboard; the thumb was too short and considered useless; it was either omitted or utilized very rarely; it remained for Bach to realize the enormous importance of the thumb as a pivotal point of all pianistic possibilities and to give to this most indispensable of fingers adequate employment; by passing the fingers over the thumb and vice versa the thumb under the fingers, Bach thus became the originator of piano playing as we know it, and gradually our present hand position which involves curved fingers and constant use of the thumb was introduced, and by utilizing all major and minor keys in the Well-Tempered Clavichord Bach created a new epoch in the history of piano technique. Of his contemporaries the Couperins, Rameau and Marchand of France did much to cultivate a graceful and rhythmical style of performance, quite in contrast to the severity of the German School. Handel's compositions developed velocity in many of his suites, and Domenico Scarlatti may be termed the first virtuoso, as he invented difficulties for the pleasure of mastering them, instead of using them as a means for higher purposes of artistic achievement; thus we find in Scarlatti's works distant jumps, quickly repeating notes, swift trills, staccato work and double thirds. Neither Haydn nor Mozart extended the scope of technique perceptibly; Beethoven only in the works commencing with the Sonata Op. 53; the lyrical style of the preceding masters had changed to one of dramatic meaning and the different requirements were met by greater contrasts of dynamics and tone production.

Muzio Clementi laid the foundation for our brilliant modern style of piano playing in his collection of studies, the Gradus ad Parnassum, in which every species of technical work is fully elucidated, and his great pupils, Cramer, Berger and Klengel, followed in his footsteps. John Field of the same school cultivated the poetic vein and became the precursor of Chopin's style. Carl Maria Von Weber wrote a series of noble compositions in which the resources of the piano and the performer find much expansion in the way of brilliant scale and arpeggio work, successive and exacting staccato passages, octave glissandi and sonorous melody production. Carl Czerny, Thalberg and Kullak also developed the purely mechanical element to a high degree, the latter especially in his school of octaves, and Alexander Dreyschock of Bohemian origin amazed musical Europe by the remarkable virtuosity of his left hand. In Frankfort Aloys Schmitt published five-finger exercises which have become a necessary adjunct of piano study, and Moscheles forms a connecting link between the purely classical style and the modern romantic period.

By originating in the Gradus a five-finger exercise in continuous chromatic modulation Clementi suggested the entire series of modern transposing five-finger études, culminating in the Tausig daily exercises, and this feature of pianistic evolution has revolutionized the entire field of technique.

Mendelssohn's art did much for piano playing. He requires perfect scale and arpeggio technique, a supple wrist, cantabile touch and mastery of the polyphonic style; some new effects in the way of extended chords and the division of melody parts between the two thumbs were added by Henselt; and his master, Hummel, also illustrated purely digital possibilities most practically in his Concertos, Sonatas and the Fantasie Opus 18.

The romantic style, demanding more individuality in technique and interpretation, finds leading exponents in Chopin and Schumann. The Études of the first master give a clew to his work and abound in novel combinations, opening up undreamt-of resources of the instrument. In Schumann's compositions the art of phrasing, solid passage work and effective chord playing are cultivated.

Franz Liszt is the master who combined the excellencies of all schools and brought them to a dazzling culmination. He introduced an elevated position of the wrist and forearm, made bold innovations in the mode of fingering, used the fifth finger after the thumb and vice versa played trills with three or four fingers, divided trills in double thirds and sixths between the two hands and used the pedals with surprising new effects. He closed the chapter which Clementi commenced. The great virtuosos which followed him developed their own gifts wonderfully, but even Tausig, Rubinstein and Von Bülow added but little to the actual technical material of pianism.

Efforts to improve technique by purely mechanical means have proved abortive. Logier introduced a contrivance in England in 1814; later on Bohrer of Montreal invented a hand guide, and Brotherhood's Technicon made its appearance. In our own time the Virgil system finds followers. An attempt to rearrange the present arrangement of the keyboard was made by Paul de Janko, but met with indifferent success.

The technical impossibilities of one period are relegated to the kindergarten of the next, and we find in the piano scores of Brahms combinations of rhythms and difficult positions which even Liszt did not anticipate; the works of the new Russian School, of Balakirew, Liapounow, etc., carry the requirements of execution to transcendent heights and the arrangements of Chopin's Études by Leopold Godowsky represent the ne plus ultra of seeming impossibilities. The present state of technique is one which requires the swiftest finger development, perfect facility in double thirds and sixths, a wrist of steel, intuitive mastery of abstruse polyphonic problems, all softened and brought into one harmonious entity by artistic taste, sincerity of purpose and reverent devotion for the true meaning of the composer.

Having traced the gradual development of the technique of piano playing it will be interesting and instructive to discuss the pianists and artists who were its practical exponents.

The instruments which preceded the modern piano precluded the possibility of great feats of execution or the " tours de force " of later ages, hence, the old English masters, Dunstable, Tallis, Bird, Dr. Bull, Orlando Gibbons and

Henry Purcell, contented themselves with light scales and a few chords and arpeggios; the same limitations apply to Couperin, Marchand and Daquin of France and Pachelbel, Mattheson and Buxtehude of Germany. The Handel and Bach school cultivated a severe and solid style of performance and foreshadowed the characteristics of the subsequent German period.

Clementi and Mozart delighted their audiences by their brilliant execution and rapid running work, and Hummel, Moscheles and Field followed in their vein, combining sound musicianship with dazzling effects. My old master, Heinrich Dorn, placed Mendelssohn at the head of the pianists of his day and preferred him even to Liszt. By a singular irony of fate some of the greatest performers have been denied the ability to play in public, among them Kullak, Henselt, Chopin and Nicholas Rubinstein.

Thalberg's daring virtuosity seemed so fabulous to his audiences that the incredulous Parisians climbed on chairs and benches in order to convince themselves that only one performer was playing and suspected him of employing a confederate to assist behind the stage.

Chopin's performance, though wonderfully smooth and poetic, lacked the virility which is imperatively essential to public success. Some pianists have specialized to such an extent that we identify them instantly with certain composers; thus we look upon Carl Reinecke as the Mozart player par excellence and consider De Pachmann the ideal Chopin interpreter.

Formerly the great pianists confined their repertory almost entirely to their own compositions, but with the advent of Liszt's marvelous art the possibilities of the piano concert became unlimited and the modern artist is supposed to produce the entire literature from Bach to Debussy with consummate mastery. He must present the analytical Bach, lyric Mozart, dramatic Beethoven, romantic Schumann, poetic Field, profound Brahms, sentimental Chopin and brilliant Liszt with equal authority.

England has produced but few pianists of note. Arabella Goddard enjoyed renown, and only of late years some of the younger artists like Katherine Goodson, Gertrude Peppercorn and Frederick Lamond have come to the fore, the last named especially as a Beethoven player. Spain has remained terra incognita pianistically; Portugal boasts of de la Motta; France has always excelled in the niceties and finish of piano playing; that most versatile of musicians, Saint-Saëns, plays a scale of such rapidity and smoothness that his listeners despair; Raoul Pugno and Diemer are masters of the jeu perle, Edward Risler gives authoritative readings of the Beethoven Sonatas in their entirety, and Francis Plante and Theodore Ritter presented the most ravishing technique imaginable. Norway, the land of fjords and mountains, was reflected in the art of Madam Backer-Grondahl and Erika Lie Nissen, both distinguished concert pianists. Italy is ably represented by Sgambati and Martucci, but still depends upon her vocal masters for musical pre-eminence. It is interesting to note that at the Imperial Conservatory at Tokio the works of European masters are finding ready recognition and figure largely in the curriculum.

Piano playing in America received a powerful impetus by Rubinstein's visit in 1872. He was a colossal but uneven player, the victim of moods, unapproachable when at his best. His musical antithesis, Hans Von Bülow, followed him to our shores and his deliberate and analytical performances proved high educational. His subjectivity counterbalanced the great Russian's objectiveness. Joseffy's impeccable art then came as a great revelation to us and restored piano playing to true and sane proportions. Essipoff was a charming artist, Carreño has dominated the concert stage for many decades, Fanny Bloomfield-Zeisler occupies a unique eminence both here and abroad, and Adéle Aus der Ohe is an artist of sterling qualities.

Hungary gave us Franz Liszt, whom I frequently heard while at Weimar in 1876. As he originated the entire structure of modern technics every detail was, of course, at his fingers' ends; a simple Beethoven Sonata, a Chopin Prelude was given the same finished performance as the huge Don Juan Fantasie. The fire of youth never became quenched in his veins and to his last days he remained the absolute master.

Carl Tausig, born in Poland, died at the very threshold of his art. His technical outfit was unlimited. His pupil, Max Prinner of New York, also promised well, but was taken away by relentless fate at an early age. Paderewski, another great Pole, is still with us; a man of striking personality, strong magnetism and tremendous technical capabilities. Rosenthal is the giant of the keyboard and has long since reached the climax. At the age of thirteen Hanslick, the great Viennese critic, said of him, that "he had nothing more to learn." This early precocity is the happy lot of many great pianists and we all remember the furore which Joseph Hofmann, also of Polish parentage, created at the age of eight. He has nobly kept the promise of his youth.

The superlative in pianistic art has been attained by Russian artists, and one is tempted to consider the achievements of Lhevinne and Godowsky as the closing chapter, the last word. The cool bravura of the former and the incredible counterpuntal combinations of the latter approach wizardry.

A noble art is that of Busoni's, puissant and convincing; magnificent in execution, musicianship, proportion and perspective. Among the notable pianists who deserve mention are Rudolf Ganz, Hambourg, Gabrilowitsch and Bauer, all of them gifted and thoroughly modern in their attainments. Equally great as musician and pianist is D'Albert, a master who has always stood for dignity in art, and whose profound interpretations are fully supported by a great technique.

The possibilities and limitations of the instrument seem to have been fathomed; it has yielded its most intimate secrets; all problems have been solved and it remains for future ages to create new boundaries of the art.

HISTORY OF VOCAL MUSIC

W. J. Henderson.

Artistic singing originated in the search after the best method of delivering the chants used in the early Christian church. These chants developed from the materials used in the worship of the first followers of the new religion. Of the psalms, hymns and spiritual songs mentioned by St. Paul, the first were taken from the ancient Hebrew ritual, the second were texts from the Bible and not forming part of the psalter (as the thanksgiving of Hannah) and since called canticles, and the third were rhapsodizings and improvised songs made among the Christians themselves. In these rhapsodizings, described by the apostle as the "gift of tongues," the early Christians almost certainly made an adaptation of the Greek custom of caroling on vowel sounds in honor of the gods. These carolings consisted of long, undulating cadences on single vowel tones, such as one hears sometimes even now in the final phrases of church chants. Thus entered the florid element, which afterward rose to such artistic height.

Out of these elements grew up a chanted liturgy. No general system was possible, however, till the unification of the Roman Church under Constantine (306-337). Then came the foundation of singing schools in Rome by Pope Sylvester, the entrusting of church singing entirely to the choirs by the Council of Laodicea in 367, and other important steps.

The building up of the vast and splendid treasury of Roman church music occupied centuries, and its history must be sought elsewhere. But through the labors of the Benedictine fathers of Solesmes we are able to arrive at a knowledge of the amount of vocal culture which the early church singers possessed. As the chant gained in breadth, dignity and fluency and as it added to its sustained cantilena a richly florid element the singers acquired a solid body of fundamental technique.

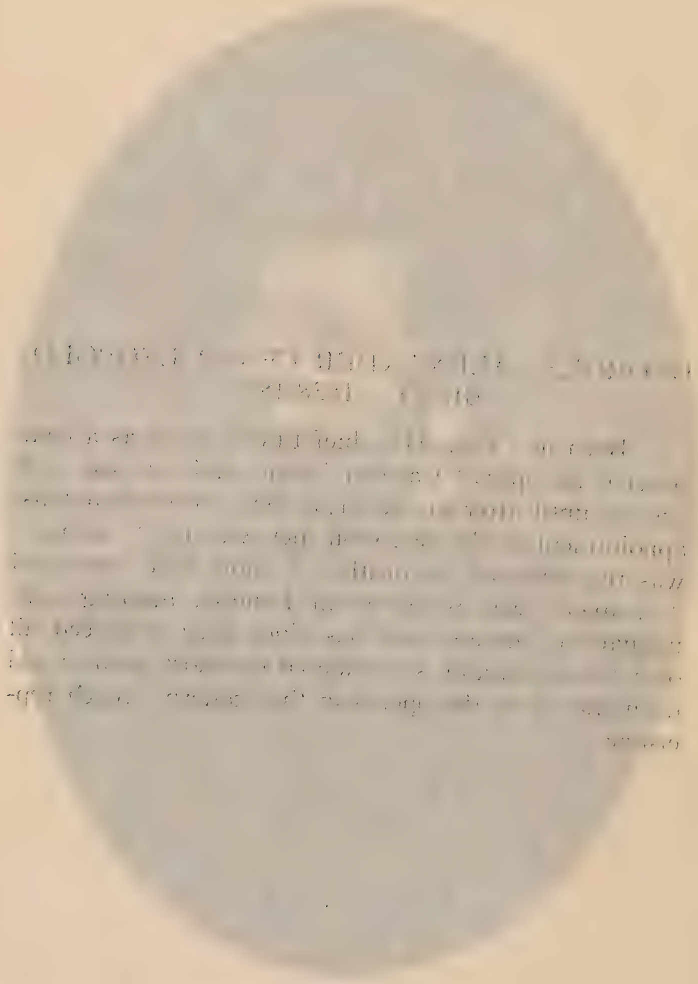
We find, then, that before the middle of the Sixteenth Century all the basic essentials of vocal art had been ascertained and were systematically taught. The ability to sing smooth, flowing music in long, beautiful tones (legato), the importance of breath control in sustaining tone, and joining notes in symmetrical phrases, the value of pure vowel sounds, the necessity of distinct enunciation of consonants and the skill to deliver the florid passages with elegance and agility were assiduously studied, and many singers excelled in these matters. Several treatises on voice and singing appeared about the beginning of the Seventeenth Century and these contained many of the principles afterward incorporated in the modern Italian method. These treatises dealt with the different kinds of voice, registers (head and chest were recognized), emission of tone, hygiene and deportment. They contained vocalizes for each voice on all the intervals.

When the Italian opera was invented at the end of the Sixteenth Century its music differed in no essential of technical requirement from that of the church, and hence singers were prepared to deliver it. The first recitatives were musically nothing other than secular chants. With the advent of Claudio Monteverde (1567-1643) the element of dramatic expression forged to the front and the chant began to approach true recitative. Rhythm and accentuation, previously of small moment, now began to be significant, while the melodic phrase appeared and became the bridge between recitative and air.

Bizet

GEORGES (ALEXANDER CESAR LEOPOLD) BIZET. 1838-1875.

Born in Paris. His chief title to fame as a composer is his opera "Carmen," which did not meet with success until after his death; in fact, overwork and disappointment at the reception met with by "Carmen" was the cause of his death. A short time afterward "Carmen" was produced in London, meeting with unqualified success, and has since been produced all over the world and is considered the most popular and dramatic of all the operas in the modern French repertory.



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The true aria, however, arrived a little later in the works of Cavalli (1599-1676) and in it the melodic basis of music finally and fully superseded the literary basis on which the chant form had rested. The dramatic character of singing now became defined and its technic entered upon a period of development embracing not only all the essentials demanded by the old church compositions but the added excellences of great flexibility of tone, skill in nuance, taste in phrasing and a larger agility than had previously been known. Monteverde had utilized florid cadences similar to those of the ornate chant, and his successors were not slow to perceive the pleasing possibilities of such writing, which they assiduously cultivated.

In 1637 the first public opera house, the Teatro San Cassiano in Venice, was opened and opera was transferred from the exclusive consideration of a cultured nobility to that of the general audience. It was now required to appeal to popular taste. The result was that in a short time it became a field for the display of vocal skill. This reduction of opera to a low artistic level deprived singing of its dramatic sincerity but equipped it with a remarkable technique. The operas of the closing years of the Seventeenth Century, especially those of Alessandro Scarlatti (1659-1725) showed a perfect demarcation of the various forms of recitative, clearly defined aria forms and all possible vocal requirements from broad and sustained cantilena to the most brilliant colorature. High voices were almost exclusively used, basses being the only low ones. Tenors were employed sparingly. Sopranos, male as well as female, reigned, while contraltos were their consorts.

In 1700 we find fully equipped singing schools teaching the now completely codified Italian method. These were the schools of Fedi at Rome, Antonio Pistocchi at Bologna, Joseph Brevio at Modena, Francesco Redi at Florence, Joseph Amadori at Rome and those of Porpora, Leo and Egizzio at Naples. Some of the pupils taught by these masters were the famous Caffarelli, Farinelli, Tesi, Cuzzoni and Bordoni. These singers and their contemporaries were heard frequently in the works of Handel, the greatest master of the period, whose recitatives and arias provide us with the best understanding of the character of the music of the time. The breadth and dramatic dignity of his recitatives have never been surpassed, while his arias demand of the singer perfect quality of tone, flawless intonation, great breath support, command of brilliant floridity, and great beauty of style in sustained cantilena. They summarize the best traits of the music of the preceding century without preserving its extravagances, and for this reason are the most admirable schooling for singers.

The domination of great singers, however, led to a rapid decline of the Italian opera and in the period immediately succeeding that of Handel it became a mere parade ground for vocal show. Feats of agility and breath sustaining were accepted in lieu of beautiful style and expression. However, the time was now at hand when the element of nationalism was to make itself felt in opera, the great field of artistic singing. Italian opera had ruled for a time in France and Germany, but these countries were developing schools of their own. In France the labors of Lully (1633-1687) and Rameau (1683-1764) had established a national school in which broad, elegant, finished recitative and a classically suave and dignified delivery, known as the "grand style," were the imperative demands. This style was preserved in the operas of Gluck (1714-1787). The florid element found little favor with the French masters and by centering attention upon the grandiose character of their music and the pompous style of its delivery they preserved French opera from becoming merely a field for the exploitation of vocal agility. The problems thrust into vocal technique by the nature of the French language early attracted the attention of Parisian singing teachers and as far back as 1668 we find Bernard Bacilly (Remarques sur l'Art de Bien Chanter) explaining how the final E in feminine rhymes should be pronounced and giving directions for other peculiarities of singing in his native tongue. The suave and elegant character of the older French vocal music survives in the graceful measures of such works as Gounod's "Faust," while the most accomplished Gallic singers of the present possess a polish in their melodic phrasing and their pronunciation of the words which is the result of precepts laid down by Lully and Rameau.

In Germany, as in France, Italian conceptions of singing at first prevailed, but in the course of time the temperament of the people and the exigencies of the national language combined to produce a style essentially Teutonic. The taste of the Germans for musical plays was largely developed and formed by the "singspiel," in which song alternated with spoken dialogue, as in modern "comic operas" and in Beethoven's "Fidelio." From long familiarity with the "singspiel" the German gained a conception of the musical play which demanded a perfect understanding of what was going forward on the stage. The result was that when recitative began to take the place of spoken dialogue he still expected to hear every word of the text in order that he might follow the development of the story. This public demand led to a cultivation of clear enunciation. But the character of the German tongue easily betrayed singers into a sacrifice of beautiful vowel sounds and the concomitant beauty of vocal tone to forcible delivery of the consonant. This trait of German singing was emphasized by the popular seriousness toward all forms of drama, which forbade all sacrifice of interpretation for the sake of merely external polish, and indeed on the other hand rather called for the sacrifice of beauty to truth whenever the two seemed to be opposed. The exaggerated treatment of the consonants worked its way from recitative into the cantilena and thus all lightness of style and elegance, such as was prevalent in the florid school of song, disappeared from the German manner of singing.

The various conflicting elements of vocal art were more nearly harmonized in the works of Mozart than in those of any other composer. In his operas we find all kinds of recitative, from the lightest and airiest conversational type to the broadest and stateliest dramatic utterance. His singers were thus required to have great elasticity of delivery, while in the flowing passages of his arias Mozart exacted from them the broadest, smoothest and most musical manner of singing. He preserved in certain parts the florid style of the earlier Italian operas (as in the music of the "Queen of the Night" in "The Magic Flute") and he utilized also the more dramatic style of florid song, as in the great airs of Donna Anna and Donna Elvira in "Don Giovanni." But in using the latter he broadened and deepened its dramatic significance so as to impose new requirements upon the singers of his works.

When, therefore, Beethoven and Weber, the first masters of the modern German School, came to write their operas, they built chiefly upon the foundations which they had in the works of Mozart. In such episodes of their operas as the "Abscheulicher" in "Fidelio" and "Ocean, thou mighty monster" in "Oberon," they refashioned all the elements prepared for them in such numbers as the "Don Ottavio, son morta" of "Don Giovanni." They employed the broad and powerfully accented recitative, the style half way between recitative and aria (called arioso), the sustained melodic phraseology and the big, dramatic kind of florid passage work, best described as dramatic bravura. This kind of song abounds in runs and other difficulties, but these are treated with a view to their expressive character and with no regard for their availability as mere mediums for the display of vocal skill. Just as Weber used the most brilliant flashing of violins through the range of the scale in his overtures so he used the voice in some of his dramatic scenes.

But this practise of the German composers, developed in order to meet the public demand for sincerity of expression, did not affect vocal style in Italy. Although the operas of the Rossinian period showed an advance over their predecessors, in some details of dramatic expression, they preserved most of the characteristics of the older school, and singing continued to be a display of technical skill in the delivery of tones without much regard for the pronunciation of the text or the significance of the scene. At this time, however, the introduction of the custom of writing operas with the recitatives accompanied throughout by the orchestra, whereas the harpsichord had been previously used for much of this work, led to the recognition of the need for bigger tone and greater volume in the cantilena, in order that the recitatives should not become apparently the more important parts of the works. It was, therefore, in the first thirty or forty years of the Nineteenth Century that the school of combined florid and dramatic singing reigned, of which Malibran, Pasta and Grisi were representative women, and Rubini, Lablanche and Mario representative men. The singers of this school preserved much of the vocal technique of the Handelian period, but superimposed upon it an energy, a vigor of accentuation and a largeness of tone which naturally obliterated some of the elegant finish of its details.

At the time when the revolutionary theories of Richard Wagner worked such radical changes in the character of the lyric drama, singing was hovering between the German style, which placed force and enunciation before beauty of tone, and the Italian manner, which strove to conserve purely superficial beauty and yet introduce dramatic appearance. Each school continued to use those set forms of aria which invited both composer and singer to offer an exhibition of either technique or expression to the audience. Wagner, by abandoning the set forms and endeavoring to fashion his operas as plays in continuous dialogue, threw out of his entire scheme the necessity for set exhibitions of singing, either florid or dramatic. His works became long sequences of recitatives, heavily orchestrated, and here and there broken by purely lyric passages, conceived rather in the arioso than the aria character. At this same period Meyerbeer, the most potent influence in the operatic world up to the time of Wagner's final triumph, was composing operas with powerful and brilliant orchestration and many arioso passages throughout. Meyerbeer, however, strove to retain the more popular elements of floridity and the set vocal piece.

The result was that singing and the composition of music for vocal plays moved steadily toward the conditions existing at the present day. In Germany the study of beautiful tone and facile execution has been superseded by a search after volume of tone and forcible declamation of text. Florid music is neglected and the prolonged study of vocalizes, such as was essential to a command of the music of the Handelian era, has been abandoned. At Bayreuth, the home of the Wagner family, it is taught that the proper way to sing the music of Wagner is to lean heavily on all consonants and to study vowel sounds not as producers of beautiful vocal tone but with regard only for their conversational character. In short, the contemporaneous German School of singing is the last and extremest development of the literary idea in vocal music, the idea which lay at the basis of the early chant, but which was speedily superseded by the musical conception of the art.

In Italy the elegant and fluent style of the school of Rossini has yielded to German influence and in the search after truthful dramatic expression the young Italian school of composers has produced large quantities of music which demands of the singer no skill in execution, but merely abundance of rich and powerful tone, ability to sustain long and heavy phrases, and vigor in declamatory emphasis. The radical difference between the contemporaneous Italian style and that of Germany is that the former is founded upon a purely musical conception. The Italian seeks rather for splendor and mass of tone than for finish in treatment of the text. The French School, following the trend given to it by Lully and Rameau, continues to cultivate elegance and refinement of diction together with suave and fluent delivery of tone.

A modern development of singing is found in the field of the song, which form of composition assumed importance through the genius of Franz Schubert (1797-1828). His works combined melodic grace and fluency with poetic embodiment of the moods of his texts. The vocal technic and style of the Weber period more than sufficed for the interpretation of these songs. But in later years song became affected by the literary idea to such an extent that verbal emphasis overbalanced beauty of tone, and the most recent songs show a decided attempt to follow the lines of dramatic recitative as fashioned in German operas. Song singers, however, are able to devote more attention to pure beauty of tone than opera singers are, for the reason that the latter are obliged to sacrifice so much for the sake of mere volume.

It is almost wholly in features of style that singing has changed in the past hundred years. The theory of tone formation, and the conception of the voice remain the same now as they were in the days of Pasta and Malibran and they were the same then as in the time of Porpora and his celebrated pupils, Caffarelli and Farinelli. The physiology of the vocal organs is better known, but this knowledge has not disproved the correctness of the practise of the great teachers of 1700. The test teachers of the present time are those who strive to impart the principles taught by the schools of Bernacchi and Pistocchi, but the cultivation of the higher refinements of those schools has been discouraged by the popularity of loud and violent singing, the heavily accentuated declamation of the contemporaneous schools.

TONALITY

All sound is the result of vibrations in the air occasioned by the vibrations of some substance as the vocal cords, strings of instruments, columns of air, membranes, or sonorous bodies. The normal ear can perceive clearly sound vibrations occurring at a rate of from 16 to 36,500 per second. No possible statement can be made of the number of sounds produced between these two extremes. The more educated and trained the ear the more capable it will be of distinguishing differences in pitch. As a result this ability varies greatly in individuals just as some have by inheritance, environment and education a very finely developed sense of taste or smell.

Sounds are contained in all noises of nature, such as the wind blowing through the trees or in the roaring of the waterfall or of waves, but although the sound rises and falls in pitch, it is not music, for each tone has no definite pitch, neither does it bear a previously determined relation to the tones preceding or succeeding it. The tones which are gathered together to constitute any musical form are selected from a definite series whose individual tones progress in pitch by well defined degrees. This series is called a scale. The name is derived from the Latin word scala, a staircase, in recognition of the analogy existing between the progressing series of tones and the ascending steps of stairs. The

Germans further express the comparison by using the name Tonleiter, a ladder of musical sounds, and the French employ the one word, échelle, to designate both scale and ladder.

This arranging of musical tones into a definite series has always been done by all races possessing music. Helmholz attributes it to a psychological reason similar to the natural feeling which has led to the rhythmical division in poetry. In other words, it is due to that inherent quality of rhythm whose reason lies beyond man's explanation but which is present in everything. It is within the realm of æsthetics. A constant factor in the problem of this science of the beautiful is to discover what it is in things that makes them beautiful or ugly, sublime or ludicrous. The explanation is ever receding and incomplete, universal laws of æsthetics cannot be established, for beyond a certain point training loses its power and each man becomes an authority unto himself, individuals having vastly different tastes.

The degrees of progression in the scale are not the same among the various races, but have differed with the epoch, the civilization, the tastes and the natural surroundings of the people. There are now in existence scales so different from our own that much training and familiarity are necessary before the beauties of their intervals can be appreciated by an alien ear.

Music in embryo is the sustained sound of a voice at different pitches. This constitutes the music of savage races whose scales may be limited but who delight in repeating a few tones, thus producing a species of chant. The true qualities of a primitive chant can only be appreciated when heard as the savage produced it, for when translated into the tones which constitute our scale it necessarily is changed owing to the difference in the number and magnitude of the intervals.

There are three points in which all scales agree. They each contain the octave, the fourth and the fifth. Scales of different civilizations and localities may contain any number of intermediate tones, but all agree in having established the natural relationship between the tones which are separated by the interval to which we refer as an octave, a name derived from the Latin word octo, meaning eight and used in this connection because the interval has been divided by eight tones, termed the degrees of the scale. The intervals between the other intermediate steps may be of various magnitudes, but the octave, fourth and fifth are always recognized. The reason for this is founded on the most simple laws of acoustics.

When a string vibrates in its entire length it produces the lowest tone of which it is capable, called its fundamental tone. If the string be lightly touched, or in technical language, stopped, in the middle of its length and caused to vibrate, it will do so in two equal lengths and, as these are each half of the entire length of the string, the vibrations will occur twice as fast, producing a tone an octave above the first. For instance, if a string in its entire length vibrated 128 times per second, the same string in two lengths would vibrate 256 times, just twice 128. If the string be stopped at a point one-third of its length, the smaller portion of it will produce a tone with 384 vibrations. Again, by stopping the string at a point one-fourth from the end, the smaller portion will produce 512 vibrations. The tone resulting from the 128 vibrations has been designated as C in the bass clef (to be explained later), and that containing 256 as middle C, the eighth tone above the first. The tone containing 384 vibrations is G occupying the fifth position above middle C, and that resulting from 512 vibrations is C occupying a fourth degree above G and two octaves above the lowest tone produced by the string.

This series of partial tones, as they are called, can be carried on infinitely, for, in theory, a string can be divided without end. Taking the partial tones in their numerical order, which corresponds to the vibrating sections of the strings, the intervals between decrease, for the ascending partials become nearer and nearer together. The ratio of the vibrations of sounds having the relations of an octave is as 1 : 2, for borrowing from the above example, as 128 is one-half of 256 the ratio of the two sounds would be as 1 is to 2, the ratio representing sounds in the relation of fifths is as 2 : 3 for 256 is twice 128 and 384 is three times 128, hence, they and the sounds they produce bear the same relation to each other as 2 does to 3, and in a similar manner the ratio representing the relationship of fourths is as 3 : 4.

The magnitude of an interval existing between two tones is determined by counting the intervening tones and including both the lower and the higher tones. Note several instances: The interval between any two tones having the relation of a third, in other words between two tones of which the higher is the third above the lower, such as the first and third, the second and fourth, the third and fifth, etc., is a third. The interval between any two tones having the relation of a fourth, such as the first and fourth, the second and fifth, the third and sixth, etc., is a fourth. The interval between any two tones having the relation of a fifth, such as the first and fifth, the second and sixth, the third and seventh, is a fifth. The interval between any two tones having the relation of a sixth, such as the first and sixth, the second and seventh, the third and eighth, etc., is a sixth. The interval between any two tones having the relation of a seventh, such as the first and seventh, the second and eighth, etc., is a seventh. The upper extremes of the intervals may be removed one or more octaves away but the magnitude and the name of the interval remains the same. The smallest interval is a second, for there can be no interval between a first and the duplicate of itself, but if two like tones are sounded it is termed a unison.

Music in its most primitive form probably arose from the very natural tendency to sustain the voice on one tone in shouting or chanting. This is monotonous and the easiest way of obtaining variety was by changing the pitch of the sustained tone. It is not natural that one individual should continue this form of music. A man's voice singing a certain tone can be imitated by another man's voice giving the same tone; but if a woman endeavors to imitate the sound she will find the pitch too low and will produce that tone nearest like it that her vocal organs allow, which will be an octave higher than that produced by the man. The two tones have a ratio of 1 : 2, which is the most simple ratio possible.

Thus it is seen that the most simple laws in mathematics establish the octave, fifth and fourth, which have always appeared in the scales of all nations, and have served as guides in the formation of the rest of the scale, although the other intervals have been established at the will of man and owe their present character to the instinct for the beautiful as possessed by musicians.

It has already been mentioned that the scales of all nations agree in having established the intervals of an octave, a fourth and a fifth, but beyond these points of resemblance there are great differences in the intervals which divide the octave. We feel that our present musical system is the most perfect and it certainly has been subject to the most improving influences. There are, however, nations whose scales contain much smaller intervals than are found in ours, this fact indicating a more acute sense of hearing, for we are unable to appreciate the slight differences between some of the tones.

China, however, employs fewer tones than we do. Their system dates from nearly 3000 years before Christ and recognizes the octave, which they theoretically divide into twelve equal parts. This scale of thirteen tones bears a striking resemblance to our scale, as it is divided into semitones. There are in use only five tones which correspond to those represented by the black keys of the piano.

The Arabs have a complicated scale. In fact, their system possesses a great interest because of its extraordinary peculiarities. It agrees with ours in the two most important intervals, the octave and the fifth, but the resemblance ends with the introduction of the smaller intervals, of which there are sixteen or seventeen, according to different authorities.

The musical system of the Persians holds an unusual interest for us because in it we can faintly discern an ancestor of our own system. They have divided the octave into twenty-four intervals, each one being equal to half of one of our semitones. This resemblance suggests that our system may be derived from that of the Persians, and the suggestion is further substantiated by the fact that history tells us that the Persians, at a very early day, migrated to Greece, where they settled and in time received new names.

The scale which we use began its final development in the hands of the Greeks, the history of whose music is greatly obscured until about the Sixth Century before Christ, although in the meager records concerning a musician and poet named Olympus living about 1400 B.C., there is evidence of a regular system. The chief elements of the Greek scale had been reduced to four tones, which are sounded upon the four strings of the lyre known as the tetrachord. Without doubt, the interval between the two extreme strings was a fourth, which remained the chief element through all the subsequent changes of the Greek scale. The tuning of the intermediate strings is very uncertain and doubtless several methods were in use.

Terpander, who lived about 670 B.C., has received the name of Father of Greek Music because of the improvement which he wrought in the tetrachord by adding three strings, tuning the seven so that they formed a double tetrachord with one common tone at the junction. The common tone was the most important of the seven and was called Mese from its position in the middle.

The entire system was crystallized by Pythagoras, the Greek philosopher and mathematician, who lived about 600 B.C. Among other things he instituted a society at Crotona, whose precepts are most interesting although many of their beliefs and practises are shrouded in the secrecy with which the members invested themselves. They believed that the world subsisted by the rhythmical order of its elements. The distances existing between the heavenly bodies and the earth were considered to have been determined according to the laws and relations of musical harmony and each body in its motion was supposed to create a certain tone whose character depended upon the distance and the velocity of the body. The tones produced by the various bodies taken together formed a musical scale and the harmonious music produced was either unheard by the inhabitants of earth owing to the great distance of the heavenly bodies, or always having been accustomed to hearing it they did not perceive it, never having been able to compare the sound with stillness. Another possibility was that the sound was too great for their capacity of hearing. Herein is the theory of the Music of the Spheres which has ever since figured in literature and song.

Pythagoreans attached considerable importance to music and gymnastics in their daily life, each member of the society being compelled to possess a knowledge of the lyre, and none was allowed to retire at night without indulging in some form of music. It was used greatly as a means for exciting and appeasing the emotions. Pythagoras had a predilection for mathematical study and this led him to trace all things to number. He placed a numerical value, such as two or three, upon all the elements of nature and man, even associating this idea with music, which led to his numerical treatment of intervals. His great fondness for the art of music assisted him in his study of its science.

Pythagoras is well called the Father of Musical Science. He perceived natural laws and established acoustical facts which have stood the test of the many succeeding centuries. It has been impossible to discover a flaw in his reasoning and the only changes that have occurred have been added to the great foundation built by him. Previously, all intervals had been created according to the dictates of instinct, and Pythagoras fully realized the uncertainty of this guide. Therefore, he scientifically established the intervals and expressed the tones, marking them by means of numbers corresponding with the number of vibrations which produced the tones. He studied the phenomena of sound vibrations by means of the monochord, an instrument whose body was a long, narrow, wooden box upon which was stretched a single string. Movable bridges were used by means of which the portion of the string to be vibrated could be limited at will. A similar instrument is still employed in studying sound vibrations.

He perceived that by dividing the string into shorter lengths, tones of higher pitch were produced. The most simple division was into two equal parts, giving a tone an octave above that produced by the vibrations of the entire string. The next simplest division of the string was into thirds, producing a tone which marks an interval called the fifth and conveniently dividing the octave. By dividing the string into four equal parts, a tone situated at an interval of a fourth from the last tone was produced. There is a remarkable symmetry in the fourth and the fifth, which at once presented itself to Pythagoras. After the fourth and fifth had been established they presented a means by which a much smaller interval could be determined by computing the difference between them, which was called a tone. By the use of the tones as a unit of division it was possible to complete the subdivision of the octave. Pythagoras in doing this turned his attention to the tetrachord.

Terpander had changed the four stringed lyre into one having seven strings by combining two lyres and giving them a common string. Pythagoras added still another string, in fact, combining two tetrachords with an interval of a tone between them, thus completing the octave. Using the interval of a tone, which he had found to be the difference between the intervals of a fourth and a fifth, as the unit of division, Pythagoras discovered that the interval of a fourth contained two tones and a fraction which as it was a little less than half a tone received the name of hemitone and which we now call semitone. The word tone as used here does not indicate the sound resulting from vibrations as it ordinarily does, but refers to the interval or step between two tones when the word is used to signify sound. The division of the tetrachord, as the interval of the fourth came to be called, into the lesser intervals of two tones and a semitone was designated as the diatonic system.

The tetrachord retained its prominence as the popular division of the Greek musical scale even after the establishment of the octave by Pythagoras, but the arrangement of the two tones and the semitone was not fixed and there appeared three varieties—the Dorian, Phrygian and Lydian—which differed as regards this point. The names were derived from the Greek nations bearing like names and it is believed that the arrangements corresponded with the traditions of the ancient scales belonging to them. The Dorian was considered the most orthodox and the entire interval of the octave was divided into lesser intervals according to that arrangement, that is, counting from the lowest upward the intervals occurred in this order: tone, tone, semitone, tone (marking the separation of two tetrachords), tone, tone, semitone. The seven intervals separated eight sounds, only seven of which differed from the others, the eighth being the repetition of the first, an octave higher in pitch. These different methods of dividing the interval of an octave are called modes.

After the octave had been established the scale could be extended with greater ease and after a time it was enlarged to two octaves by adding a tetrachord both above and below the original two. A record of this enlarged scale of Pythagoras, which derived the name of diatonic scale from the diatonic system of arranging the intervals, exists in a description left by the Greek mathematician Euclid, who lived about 300 B.C. He terms it the "Division of the Monochord" and gives the proportionate lengths of string capable of producing the various sounds in the scale.

At first the sounds of the Greek scale were denoted by names. Each sound included in the entire octaves and those designating the two extremes were given a separate name, there being in use fifteen different names. Later the names were discarded in favor of an equal number of arbitrary characters. When the Romans adopted the scale they discarded the Greek characters and invested the sounds with the names of the letters of their alphabet from A to P inclusive. During the latter part of the Fourth Century, A.D., Ambrose, (340-397), one of the Fathers of the Latin church, introduced music into the church, adopting the Greek diatonic scale. Many of the later developments in music were due to the work of churchmen attempting to perfect that employed in the church. Many of the hymns and chants were adaptations of popular melodies in no sense worthy of the use to which they were put. Although several authorities deny the claim, Pope Gregory the Great (540-604) is popularly credited with having done much toward the improvement of music. He is said to have gathered together all the hymns and melodies used in the service for all of the principal seasons of the church year and united them in such a manner that they were more easily preserved. He established schools for the education of choristers and would refuse to ordain a priest who did not possess a sufficient knowledge of church music. Perhaps as important as any of his works was the manner in which he simplified the nomenclature of the sounds of the scale. He was the first to recognize clearly the relationship which Pythagoras had established between tones situated at the distance of an octave apart and denoted them as they occurred in the course of the scale by the same Latin letter, only varying its character. For the first octave he used the capital letters A, B, C, D, E, F, G, for the second he used the small letters, and for the third the small letters doubled.

Guido d'Arezzo, an Italian Benedictine monk of the Tenth and Eleventh Centuries, has been falsely accredited with the invention of the staff or the series of five horizontal lines which are so arranged that when the signs or notes used to represent the musical tones are placed upon or between the lines, the pitch of the tones will be indicated by the position of the notes in respect to the lines. The etymology of the word refers to its function as a staff or assistant in determining pitch. At first the characters used to represent the tones were very crude. The neumes, as they are called, were irregular in outline and were doubtless derived from the hieroglyphics used by the old Jewish rabbis in indicating pitch in their chants. They possessed various shapes, resembling periods, commas, straight and curved lines, and were united to represent not single tones but groups of tones. They indicated where a melody was to rise and fall, and their arrangement showed the comparative rather than the actual pitch of any character. The neumes were placed immediately above the syllables to be sung, but it was impossible for them to enable a singer to read a new piece of music at sight. Doubtless they were employed to assist the singer's memory when attempting music which he had heard before. They were exceedingly inadequate and are unintelligible to present-day musicians.

About the year 900 a red line was added to indicate the actual pitch of one tone. This line was assumed to be F, and it naturally followed that the pitch of G and of E was likewise actually determined because of the position of the characters representing these tones immediately above and below the red line. Later a yellow line signifying C was added and the pitch of B and of D became actually designated because of their contiguity to C. Finally the colors were dispensed with and the letters F and G were written at the beginning of their respective lines. They acted as keys to the notation and thus acquired the name of claves or clefs from the Latin word clavis, meaning key. During the Eleventh Century two black lines were added, one situated above the yellow line and one situated between the red and yellow lines and designating E and A. Gradually the neumes were abandoned and the characters or notes became either square or lozenge shaped, the development into those now in use continuing gradually.

The fifth line of the staff was added about the time of Guido and a staff was produced very similar to the one now in use, although for a long time the number of lines which it contained varied. During the early Tenth Century a staff having a large number of lines was in use and the syllables to be sung were written between the lines at the proper pitch. The interval at which the voice was to proceed was denoted by the letters T and S placed at the beginning of the staff. They designated Tonus and Semitonum, the Latin words, meaning tone and semitone.

However, the mere five lines could not absolutely represent the pitch of a sound and the keys or clefs have been retained in use. Three principal ones are now employed. They are placed at the beginning of the staff and their position on the lines of the staff indicates the name and pitch of the notes standing on that line and relatively the names and pitches of all the notes on the lines and in the spaces above and below it. One clef indicates middle C and is not used in piano music nor much in vocal music, and hence is not familiar to many persons. Another clef indicates G, a fifth above middle C and is found in piano and organ music at the beginning of the staff in which are written the notes played by the right hand and in music sung by the soprano and alto voices. The third clef indicates F, a fifth below middle C and is found in piano and organ music at the beginning of the staff in which are written the notes played by the left hand and in music sung by the bass and tenor voices. These G and F clefs are also used in all instrumental music.

The ordinary staff of five lines can be increased by leger or added lines when necessary. These lines are employed when the range of notes used extends beyond the number which can be placed on or between the five lines. They are only the length of a note and can be added above or below the staff indefinitely, although when the number of added lines tends to be too great for ease in writing or interpreting the notes are written an octave lower than they are intended to be sounded and a dotted line drawn above them and marked 8va, denoting that the pitch should be an octave higher. Before the invention of the leger lines, the C clef was used almost exclusively and its position on the staff was changed whenever the change of notes used overstepped its limits. The positions of the clefs now in use are changed at times to avoid adding a very large number of leger lines. As has been seen the diatonic scale consists of a series of groups of seven sounds, for no matter what may be the extent of the scale it is merely made up of repetitions of seven sounds at the distance of an octave apart. One of the seven is selected and the other six are made subservient to it regarding certain relations which are of much importance in the structure of modern music. This important tone is called the keynote or tonic and the system of relations that hangs upon it is called tonality.

In the days of the Greeks the keynote was the mese or middle tone. Aristotle attributes to the middle string of the lyre an influence over the tuning of the other strings and a very frequent use in all compositions. It is a question as to what place in the octave the mese occupied and although one writer ascribes the position of fourth above the lowest, the more general belief is that it was the lowest, which naturally would be the more important as it designates one extremity of the octave. It is also believed that every composition ended in it. The tonality of the Greeks eventually became very complicated and has presented many difficulties to the investigator. Not until the middle of the Eighteenth Century were there presented any facts which might be considered authentic. The eight stringed lyre or double tetrachord, an instrument which has previously been discussed, was in nearly all instances used in accompanying vocal music. It was tuned so that an interval of an octave existed between the highest and lowest strings. The diatonic system had decided that this interval of an octave should be divided into seven lesser intervals, five of them tones, and two semitones. Given these seven intervals there were possible seven methods of arranging them, each arrangement placing the semitone in new positions. The various arrangements are known as the Greek modes. The individual characteristics of each mode rested entirely upon the positions it gave the semitones. As time progressed changes were wrought in the modes, and their number was increased. Each addition that was gathered tended to make the Greek musical system more complex and less easy to understand. Furthermore, only vague and unsatisfying records have been left us of the conditions existing during the years preceding the rise of Christianity. Therefore, at this juncture a break occurs in the history of the structure of music.

With the coming of Christianity there was a very evident change in musical structure. Music as the expression of sentiments and belief in the Christ was productive of new sensations which sought expression. Furthermore, the believers were admonished to sound their praises by means of music, but it was only natural that the old music should serve as a foundation for the new, which grew from ideas borrowed from the ritual of the Jews, and from the temple and secular music of the Greeks.

Ambrose, in the Fourth Century, greatly simplified the modes by rearranging them until only four were retained. The tones of each mode were comprised within the interval of an octave counting upward from the keynote. The four modes of Ambrose are designated as the authentic modes and served as a foundation to four new ones which were added by Gregory two centuries later. These were called plagal or leaning modes, because of the relation which they bore to the authentic modes. The compass of the plagal modes was only an octave, as was that of the authentic, but the tones were limited to those between the fourth below the keynote and the fifth above the keynote. As an instance let the notes D, E, F, G, A, B, C, D, represent the first authentic mode. From this the first plagal mode was formed by using the notes A, B, C, D, E, F, G, A. In both cases D was the keynote. The compass of the mode had been increased downward by the interval of a fourth, but as it ascended had been decreased in the same degree. When a melody was written in any authentic or plagal mode the variety of notes which might be used was limited to the eight found within the interval of an octave and having positions as stated, either between the keynote and the octave or between the fourth note below the keynote and the fifth note above it. At times a mixture of the authentic and plagal modes was used, in which case the compass of both modes was employed and the range of notes was between the fourth note below the keynote (as in the original plagal mode) to the octave above the keynote (as in the original authentic mode). Again as time progressed the musical system became more complicated. In order to produce variety, which is always demanded by progress, several changes were made permissible and the simplicity which had been instituted by Ambrose was lost as had been the original simplicity of the Greek modes centuries before. Another reformation was necessary.

Tiring of the confusing authentic and plagal modes of Ambrose and Gregory, Glareanus, a writer of the Sixteenth Century and poet laureate to Emperor Maximilian, endeavored to create order. He made a diligent research among the old Greek modes and determined upon the use of six authentic modes and formed six plagal modes upon them. He attempted to give them the old Greek names, but became confused and did not bestow the correct ancient names upon the corresponding new modes. Nevertheless, his work was ignored to a great extent and the church modes remained in use in church music although two of those established by Glareanus, corresponding to our major and minor modes, were used in secular music.

When harmony began its growth it was found that the church modes were not suited to its use and they were discarded, leaving the two of Glareanus which had survived in secular music. One of these was especially abhorred by the pure-minded churchmen because of its incessant use by the Troubadours and other frivolous musicians. It was even called the modus lascivus, or wanton mode. However, it was the one most adaptable to harmony and has developed into our modern major mode, which has had such a general use that it has been employed in practically all the music written during the last two centuries. The older modes are sometimes employed, and a decidedly powerful quality can be added to music when variety is obtained by the use of the church modes, the Dorian, the Phrygian, the Lydian, the Mixolydian, the Ionian and the Æolian. Handel shows his appreciation of this fact in the oratorio, "Israel in Egypt," where he employed the Phrygian in the chorus, "Egypt was glad," and the Dorian in the chorus, "And I will exalt Him."

The intervals of the modern diatonic scale have been decided by tonality and harmony. Sounds may have the proper number of vibrations and may be perfect according to theory as based on the acoustical laws of Pythagoras, but when sounded together in the manner of harmony they are found to produce an effect which is not considered pleasant. As harmony has become the basis of our musical system this was a condition which could not be allowed to exist. It is true that harmony in a meager sense had already existed in melody where tones are sounded successively, for the same mutual relations are necessary in melody as in harmony. With the introduction of harmony in reality the laws governing these relations grew into greater importance until they formed the basis for fixing the exact positions of the tones in the scale. Notwithstanding the importance of harmony in solving this problem it must not overstep the bounds of its power, but at all times the importance of the tonic must be considered and reference must be made continually to the keynote when determining the other seven tones of an octave.

The intervals established by the Greeks did not allow the application of harmony and to satisfy the æsthetic sense of musicians the magnitude of some of the intervals was changed. The intervals of a tone between D and E and between G and A were lessened, or flattened, and the intervals of a semitone between E and F and between B and C were increased. Thus the scale as it now exists owes its intervals in a large degree to laws made by man.

The diatonic scale with C as a keynote is represented by the white keys of the piano or organ. The black keys represent notes which, when added to this diatonic scale, form the chromatic scale. Chromatic notes mark intervals of semitones, similar to the two which have always existed in the diatonic scale. They have been added owing to the natural desire of musicians to increase the available number of tones. A continuous succession of semitones is also a very natural arrangement, suggested by the two semitones already established. The semitones, like the tones, must have mutual relations with the keynote. They are generally considered as the tones of the diatonic scale changed by having been raised or by having been lowered half a tone, the name of the diatonic tone being retained. Nevertheless, this is by no means the case, the chromatic semitones being entirely independent of the tones in this respect and being worthy of independent names if the simplicity of the notation would not then be detracted from by so doing.

The semitone of theory is not exactly half of a tone and when the distance it represents is counted upward from a given tone, say A, and then is counted downward from a tone above A, which is B, the new tones will not be identical, but the first, A sharp, will be a little below the second, B flat. This difference is called a Pythagorean comma and is of such minute magnitude that it is hardly distinguishable by the average ear and, though playing a somewhat important part in the mathematical consideration of the scale, is practically of no importance musically. The difference of opinion of physicists and musicians as to right and wrong on this subject has led to reciprocal concessions and a half-way point has been established, so that now the two tones are considered as sounding alike. This system of dividing the scale into almost equal intervals is termed equal temperament and its general use dates from the early part of the Eighteenth Century.

According to the more complicated and theoretically correct system having two chromatic tones between each two notes of the diatonic scale except when the interval is only a semitone, the chromatic scale would consist of seventeen tones instead of twelve as it now does. They would be C, C sharp, D flat, D, D sharp, E flat, E, F, F sharp, G flat, G, G sharp, A flat, A, A sharp, B flat, B. It is true that in order to simplify the scale into the twelve notes it was necessary to put many of the intervals out of tune, the interval of the octave remaining in its theoretical perfection. However, equal temperament distributes these unavoidable inaccuracies in tuning among the twelve chromatic tones in such a way that although no one of them is perfectly pure the deviations do not offend the ear.

Johann Sebastian Bach appreciated the great practicability of equal temperament and in 1722 there appeared his famous Wohltemperirte Clavier which contained twenty-four preludes and fugues, each one having been written in one of the major and minor keys of the twelve chromatic scales. It was a wonderful and most valuable demonstration of the manner in which the scales could be used after equal temperament had been applied to them. The new tuning opened opportunities for variety in composition that had hitherto been closed, for in the old theoretically correct tuning the music could only be written in the few keys in which a limited number of chromatic notes were employed.

It has so far been found impracticable to furnish keyboard instruments with seventeen keys in the interval of an octave. If it were done the keyboard would be so extensive that the fingers of the performer could not cover a range of notes nearly as great as is now possible. Thus it is that equal temperament has made it possible for these instruments to become as generally useful as they now are. This tuning is as perfect as our musical system requires, as has been proved by the thorough test which it has undergone for the past two centuries.

Only an exceptionally trained ear can distinguish between equal tuning and theoretically correct tuning. The exactly pure tones can be produced only by the voice or with a flexible instrument such as the violin or the trombone. The vocalist and the performer upon these instruments have the power to determine the pitch of each note which is given, while the pitch of other instruments is previously determined by the tuner. The violinist decries equal temperament as improper, and objects to the piano, declaring that it is discordant. Nevertheless, as far as the piano and a host of other instruments are concerned, equal temperament is a necessary evil and the violin, the voice, or the trombone, must follow the newer tuning when used with the other instruments.

The divisions of half tones were noted by the Greeks, and because of their value in embellishing the diatonic scale were likened to coloring, and called chromatic tones. In church music the use of the chromatic tones was left to the dictates of tradition or to the taste of the singers until the Sixteenth Century, when the chromatic scale in its entirety was adopted.

Chromatic notes can be used to embellish melody without changing the key or can be introduced in the production of new diatonic scales by modulation. In the latter case variety is secured by adopting various notes of the diatonic scale as keynotes. It has been seen that in the diatonic scale the intervals of tones and semitones are arranged in ascending succession as follows: Tone, tone, semitone, tone, tone, tone, semitone. When C is the keynote and in the arrangement of the keyboards of the piano and organ, the semitones occur between E and F and between B and C. The intervals of tones and semitones must always follow the same sequence, and in order that this may be so when the keynote is changed it has been found necessary to add more notes to the scale, which can be done only by introducing chromatic tones. If G is determined upon for the keynote, it will be found that F, as it appears as a fourth in the key of C, is out of place and a new tone situated a semitone higher must be found to act as a seventh in the new scale so that the intervals may have the correct magnitude.

The new tone will be F sharp, a semitone above F and when it has been substituted the intervals will occur in their proper order. For the same reason tones must be flattened in a similar manner. If F is determined upon for the keynote it will be found that B as it appears as the seventh in the key of C is out of place and a tone situated a semitone lower must be found to act as a fourth in the new scale so that the intervals may have the correct magnitude. The new tone will be B flat, a semitone below B and by means of its substitution the intervals will occur in their proper order.

Every semitone may be a keynote. As the number of chromatic tones which must be substituted for those of the diatonic scale in order to maintain the proper succession of intervals, varies from one to seven, it is easily perceived that the array of chromatic signs in a piece of music would often be bewildering to the reader. To obviate the otherwise necessary repetition of the chromatic signs, a key signature is used. Just after the clef in the beginning of the staff the proper number of chromatic signs, sharps or flats, are placed upon the lines and spaces where the chromatic notes should occur during the entire piece, or until a new signature is inserted denoting a change of key.

The signs which indicate chromatic tones came into existence at various periods. That which marks the flat is of most ancient use and is found in the books of chant from about the year 927. Near the close of the Thirteenth Century there appeared the sign of the sharp in a slightly different form from that now used. The natural sign which destroys the effect was used in canceling the flat about the middle of the Seventeenth Century and has been employed in canceling the sharp since the Eighteenth Century.

As has been discussed heretofore, the arrangement of the intervals forming a scale has been in accordance with the major mode. In the minor mode the arrangement of intervals differs, wherein lies the distinguishing features of the mode. The original minor mode was the Æolian mode of Glareanus, but it is now not used exclusively. The succession of intervals in this mode is 1—2‿3—4—5‿6—7—8, which may be compared to the following succession as found in the major mode: 1—2—3‿4—5—6—7‿8. (The intervals of a tone are signified by — and those of the semitone by ‿.)

It is seen that the interval of a third, from 1 to 3, in the minor mode is less than the same interval of the major mode, and it is from these intervals that the modes derive their names. The third of the minor mode consists of but a tone and a semitone, hence, Lesser or Minor, while that of the major mode consists of two whole tones, hence, Greater or Major. In fact, the minor mode was at one time called the mode of the smaller third, and the major the mode of the greater third.

It is also to be seen that the interval between the seventh and eighth of the major mode is a semitone. The modern ear requires that the seventh degree be what is termed a leading tone, that is, it should possess such a marked relation to the eighth that when it is sounded we shall expect it to go to or lead up to the keynote. Hence, the interval of a tone was changed to a semitone which change, however, created an interval of a tone and a semitone between the sixth and seventh degrees so that the succession was thus: 1—2‿3—4—5‿6+7‿8. The plus sign signifies the position of the interval of a tone and a half. (6 and 7 should be separated more than other degrees.) This succession filled all the requirements of music and is termed Harmonic, but the voice has no natural tendency to observe such a large interval as a tone and a semitone and it became advisable to overcome this difficult interval. This was done by increasing the interval of a semitone between the fifth and sixth degrees to that of a tone. The change brought about a new succession of intervals as follows: 1—2‿3—4—5—6—7‿8. As the scale descended it was also found well to change the succession thus: 8—7—6‿5—4—3‿2—1. This scale is generally used in music for melodic construction for which reason it has received the name Melodic.

Rhythm is the idea of motion which is in music. Any succession of long and short tones contains a rhythm in that it possesses a complete motion peculiar to itself. In listening to music it is easy to observe the end-point of rhythmical divisions for at these points it is instinctively felt that a pause must occur and that a new motion must begin. Very similar is the instinctive realization that rhetorical pauses should occur at certain places in a literary composition.

Metre, the measure of music, is generally accepted as an essential feature of musical composition. It probably dates back almost to the beginning of music, when other voices joined that of the leader in the primitive chant. It was necessary that they be guided in some manner so that all would attempt the same tone at the same time. The most evident guide was the duration of the tones and when the length of duration had been determined upon the smallest definite measure in music had been selected. In poetry the syllables of words are arranged according to a measured form of some description, several syllables of varying lengths being contained in each division of the measure. When poetry was combined with music the metrical division which is the distinguishing feature of poetry made necessary similar metrical divisions in the music. The Greeks used a most elaborate system of metre which corresponded closely to that of their poetry. When music and poetry were combined the duration of the tones corresponded with the length of the syllables. Short syllables were sung to short tones and long syllables to long tones. This system of unequal length of the tones was also applied to the music when unaccompanied by poetry.

The writers on music of the early Christian era have maintained a bewildering silence in regard to measure and it is a matter of doubt as to its existence, but Fétis in his History of Music shows the existence of signs of measure in church music of the Seventh Century. The method of regular uniform measure which runs throughout is of comparatively modern adoption and dates from the beginning of the use of the present system of notation. The system of placing the syllables to be sung between the lines of the staff in the place of the older neumes was followed by the use of angular periods or points placed on the lines of the staff instead of between them. The intervals to be observed were denoted by Greek letters placed at the beginning of each line of the staff.

This method in turn was followed by one in which notes of various values were employed. They were the Large, the Double Long, the Long, the Breve, the Semibreve, the Minim, the Greater Semiminim, the Lesser Semiminim or Fusa, the Semifusa and some of even smaller value, each note being equal to two of the next lesser denomination. The Semibreve is now known as the whole note, the Minim as the half, the Greater Semiminim as the quarter, the Lesser Semiminim as the eighth, and the Semifusa as the sixteenth. However, no exact length of duration had been determined for any of the notes and they merely represented proportionate duration. When independent melodies for several voices were arranged to be sung together the system of balancing two against one breve or two breves against one long was adopted. Owing to the absence of an exact measure or duration this system of notation proved inadequate and the necessary improvement gradually brought into existence the present notation and exact measure of duration.

Bars are the vertical lines which extend across the staff dividing the musical compositions into parts possessing equal duration and indicating the periodical occurrence of the accent. They may have originated in similar lines of varying lengths which extended across certain lines of the staff and at an early date indicated rests. The name bar has been incorrectly applied to the measure, which is that part of the staff found between the bars. At first music was not divided into measures, there being no necessity for it as the notes were all of one length. Later they were given various lengths and it became necessary for it to be measured, but bars were not employed, the value of the notes determining the metre. However, the values were changeable, depending upon the order in which the long and short notes followed each other. To overcome this deficiency the use of a mark called in Latin punctum divisionis, meaning point of division, was introduced. In appearance it resembled a period, but had no effect upon the value of the note it followed, only marking the rhythmic periods.

The bar began to make its appearance gradually and was used at times to mark the end of each verse. It was first used in music in which independent melodies for several voices had been arranged to be sung together. These parts were written under each other and the bars extended through the several staffs in which the notes were placed in order to aid the musicians in keeping together. A double bar marks the close of an entire composition or of any part of it which is complete in itself. This sign has nothing to do with marking the metre and does not need to occur at the end of a bar. The double bar preceded, succeeded, or it may be both, by a colon is the sign of repetition and is used when any theme is to be repeated for any reason.

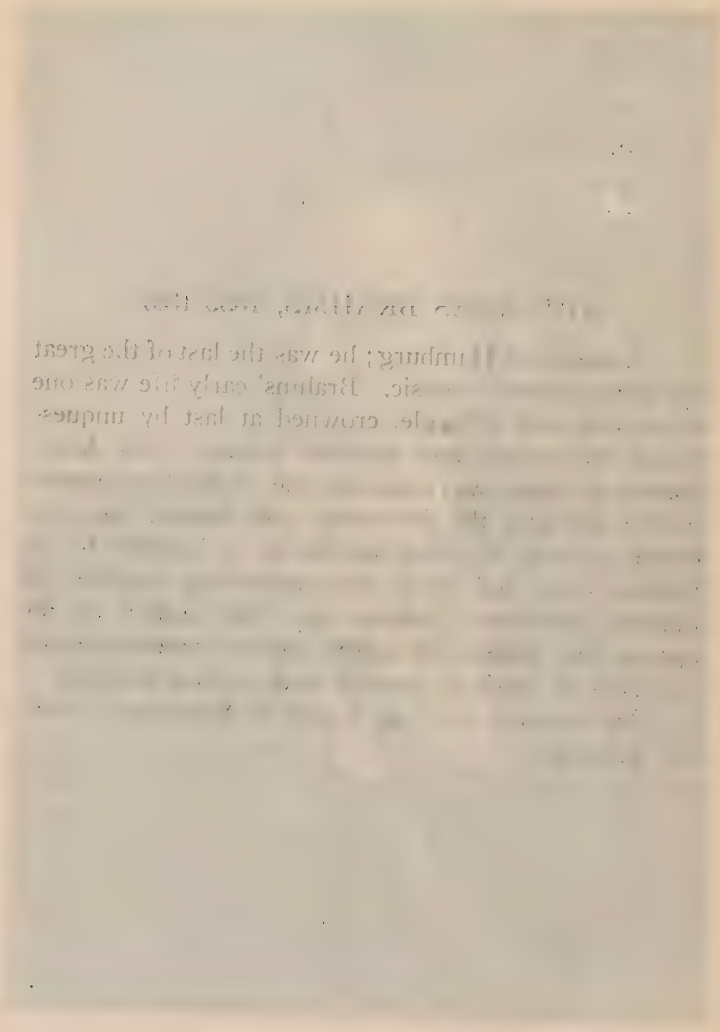
The introduction of bars thus brought about the system of constant measurement known as metre. Each measure of music must contain a certain number of beats or time units. The number need not remain the same throughout an entire piece of music, but must continue through two measures, at least, until its regularity is apparent. Each beat or time unit need not be represented by an individual note, but one note may have the value of two or more beats and two or more notes the value of one beat. Furthermore, rests may occupy the positions otherwise held by notes and may possess various time values in the same manner as do notes. This, however, merely establishes a symmetrical order and the beats or time units may occur at various speeds, which are approximately indicated by words placed above the staff.

Medieval writers describe two kinds of time, perfect and imperfect. Perfect was that in which a breve was equal to three semibreves. The name was derived from the fact

JOHANNES BRAHMS, 1833-1897

A native of Hamburg; he was the last of the great German masters of music. Brahms' early life was one of poverty and struggle, crowned at last by unquestioned recognition and financial success. His development in music was along the line of the development of the art, first the folk-songs and dances, then the choral writing in which polyphony is brought to its highest form and lastly the culminating majesty of musical structure. Brahms was the author of no operas, but dramas, dramatic scenes, comedies, epics and tales in music he poured forth without number.

He was the life-long friend of Schumann, Liszt and Joachim.



that the term perfect was always applied to the number three because of its association with the Ever Blessed Trinity. In imperfect time a breve was equal to two semibreves. At the beginning of every piece of music, immediately after the key signature, if there is one, there is placed a figure which indicates the metre and which is called a time signature. It is generally a fraction, the numerator of which indicates the number of beats to be found in a measure and the denominator the value of the notes representing each beat, although the values may be expressed in notes of other values. There result two general divisions of metre, duple and triple. In duple metre the number of beats which are contained in a measure is divisible by two and in triple metre the number is divisible by three.

About the Thirteenth Century time signatures made their appearance. To signify perfect metre the circle, as the most perfect of figures, was used. As the signature of imperfect metre the semicircle was employed, by token of its imperfection as a figure when compared with the circle. This sign has been retained and is used to indicate what is called "common time." Its form has changed until it bears a striking resemblance to a C which has led to the too-hasty supposition that it referred to the word common, although the sign is used by nationalities who have no such word in their language. A horizontal bar through the sign denotes that each measure contains half as many beats.

There are innumerable methods of metrical measurement, but an explanation of a few signatures will give a general idea of their significance. The following for duple metre:

The semicircle with the horizontal bar through it, or the fraction 2-2 denotes that each measure contains two beats, each one represented by a half note or its value in other notes.

4-2 denotes that each measure contains four beats, each one represented by a half note or its value in other notes.

The semicircle or fraction 4-4 denotes that each measure contains four beats, each one represented by a quarter note or its value in other notes.

6-8 denotes that each measure contains two beats, each one represented by a dotted quarter note or three eighth notes.

12-8 denotes that each measure contains four beats, each one represented by a dotted quarter note or its equivalent, three eighth notes.

12-16 denotes that each measure contains four beats, each one represented by a dotted eighth note or its equivalent, three sixteenth notes.

The following are triple metres:

3-2 denotes that each measure contains three beats, each one represented by a half note or its value in other notes.

3-4 denotes that each measure contains three beats, each one represented by a quarter note or its value in other notes.

9-8 denotes that each measure contains three beats, each one represented by a quarter note or its value in other notes.

9-16 denotes that each measure contains three beats, each one represented by a dotted eighth note or three sixteenth notes.

Modern composers have attempted irregular metres such as 5-4 and 7-4, 5-4 denoting that there are five beats in each measure, each beat represented by a quarter note, and 7-4 denoting that there are seven beats in each measure, each beat represented by a quarter note. A notable instance of the employment of 5-4 metre is by Arensky in his "Basso Ostinato," and Debussy has measured his "Nocturne" according to the 7-4 metre.

A system of metre is not followed without deviation, but the pleasure is increased and monotony avoided by occasional changes. The rate at which the music is to be interpreted may be quickened or retarded and any such changes are indicated by the Italian words, accelerando or rallentando. At times a pause is demanded when the motion is stopped altogether. The accent does not always fall upon the first note of the bar, but may be indicated for some other note, this system, termed syncopation, continuing for several measures. Another change is brought about by indicating emphasis of parts of the music after the same manner in which emphasis occurs in speaking. The success with which a composer varies the accent and emphasis constitutes in a great degree the success of his completed work.

We have now hastily traced the very gradual growth of the system of music, a system which doubtless has been changing with the ages and the races since the very beginning of the world, for we have no means of determining when or how the first music originated. We possess many conjectures founded upon observations of the methods employed in music-making by the most primitive peoples now in existence, but traces are found of the use of well-developed systems before the dawn of history. Except the most fundamental rules, those governing the system are founded upon no laws of nature but upon the changing basis of man's fancy, or more properly, his idea of the beautiful. This aesthetic sense changes with environment and training, and environment and the methods of training change with the years, so that coming generations will likely possess many additions to our varied history of music and its laws. We have, since the early Grecian period, authentic history of the changes that have been occurring in tonality, notation and rhythm and metre, but none of these changes has been based upon any scientific discovery but have occurred according to the dictates of musicians of the period in which they took place.

HARMONY

Melody, which is a succession of single sounds, is the basis of harmony, although it is essentially distinct from it. Music to be performed by one voice or by an instrument which is capable of giving but one tone at a time is written as a melody. As the voice or any of these solo instruments, as they are called, are rarely heard alone, being generally accompanied by other instruments, the compositions in which they occur are usually written in harmony, that is two or more different musical sounds at different pitches are produced simultaneously, and melody pure and unaccompanied is little heard. In fact, the impression has grown that melody without harmony does not exist. Nevertheless melody was the only form of composition in existence for thousands of years and it still exists as the sole form known to many nations of the East. Their melodies are perhaps not tuneful to our ears, but according to the scales and to the æsthetic sense of the people to whom they belong the music fulfils all the requirements of the melody.

The Greeks are the most ancient people whom we know to have used a musical scale similar to the one which we use, and there are still in existence a few melodies belonging to them. The signs used to represent the tones are not easily interpreted, but notwithstanding the differences of opinion among researchers concerning some notes it is possible to give a fairly accurate reproduction of these ancient melodies. The signs indicating the tones were placed immediately above the syllables which they were to accompany and those who have translated the melodies into our notation have been guided as to the difference in the duration of the tones by the varying shapes and sizes of the Greek signs. The compositions appear crude and without musical purpose when heard by modern ears.

More modern and, according to our standard, less crude are the melodies used by the early Christian Church. There was in use at that time a more definite notation than in the Grecian days and as a consequence the melodies have been preserved in a more complete form. In nearly every Roman Catholic church the Gregorian music is now heard in accordance with the wishes expressed by Pope Pius X. in 1903. In spite of the renovations which church music has undergone at various periods, each time there has gradually grown into use music which entirely lacked the simple, purely religious qualities possessed by that which it is claimed was established by the early church fathers. Even the strictly Gregorian music had been completely changed in character by the addition of harmonies agreeing with more modern tonality to the original melodies which had been arranged according to the ancient church modes. Stripped of the modern changes to the best ability of the researchers and arranged in accordance with the old church modes the music presents a totally different appearance, and is even deficient in metre. Neither is there evidence of systematic tonality, there being no scale in the modern sense of the word, although the intervals are less without reason than those in the music of the Greeks.

Here let us pause and attempt a realization of what the church has done for music. In the beginning there were a few fragments of pagan and Hebrew music which were remodeled and built upon little by little. Pope Gregory in the Sixth Century is said to have collected and systematized the hymns and chants which had resulted from these fragmentary beginnings and had them copied into a complete book called his antiphony which was fastened to the altar so as to be ever available for reference. This collection in turn is said to have formed a foundation for many marked improvements. The unchangeable law of life is progress which manifested itself in music as well as in all else and the greatest composers of all ages have left no more striking examples of their ability than in their masses, offertories and other sacred forms. It was in the monasteries that notation was developed. As the inmates labored day by day in copying their sacred music better methods suggested themselves and were employed.

We have learned how the Troubadours had rejected the more confining church modes and had made use of two modes that later became known as major and minor and are now employed. These modes afforded more variety for the musicians in their gay songs, which, as we have also learned, cast the composers and singers into sad repute among the churchmen. It is natural, that having used the same modes, the melodies of these worldly singers bear a strong resemblance to the melodies of today.

Each year brought to musicians a realization of the value which lay in a systematic tonality, a realization of the better results to be gained by having an accepted plan to follow in constructing their compositions. Metre was also growing into its position as an essential part of music until there appeared the three qualities which melody, in order that it may be true melody, must possess:

The tones which compose it must be selected from a properly authorized scale.

Throughout they must be subservient to a key-note, and fulfil the laws of tonality.

They must be so evidently metrical in their construction that quality shall be easily apparent to the hearer.

Beyond these three essentials there are no rules governing the quality of melody. What tones are to be used and how they are to be arranged lie entirely within the pleasure of the composer. Melody may be pleasing or distasteful without a reason. Again we have arrived at something which can only be explained by a reference to the æsthetic sense. The good qualities of a melody are determined variously by individual hearers, and any flights of imagination and fancy which the composer or performer may allow himself are likely to find favor with a few hearers at least.

Whereas melody is a succession of tones, harmony is the effect produced by two or more sounds heard simultaneously. Inherent in melody is the idea of motion, while in harmony is that of rest. A musical idea in melody can only be expressed by a moving succession of tones, while a group of tones, sounded simultaneously in what is called a chord, expresses a complete idea, even though it may stand still. Progressions or a series of chords having different pitches but related musically occur in harmony as do changes of pitch in melody, but a chord may express an idea so beautiful that singly it will be able to hold the attention of the hearer. The progressions of melody may be likened to the succession of words which make a sentence, while those of harmony more resemble the succession of sentences forming a story.

Not only is harmony artistically important, but the reasons why certain combinations are considered beautiful and others are considered discordant and the manner in which the rules which govern harmony have come into existence has ever appealed to scientists as possessing great interest and have been made the subject of innumerable treatises. It is in this theoretical fashion that we will consider harmony and its rules and not as the student who desires to write music. To him these rules are the grammar of music, but to us it is only the manner in which they came into existence that is of interest. They are in nearly every case artificial and their origin can be traced to none of the fundamental laws of nature.

There is a striking analogy between music and language. The poets refer to music as the language of the soul and say that through it alone can souls communicate. In fact music resembles language in its growth and in the manner in which it differs in its appreciation by nations and individuals. Both are governed by man-made laws which are equally without scientific explanation. Just as different nations have languages entire unintelligible to the people of other nations until an acquaintance has been formed, so there is in existence music which cannot be appreciated by any but the people to whom it belongs. The English without suitable training can neither understand the music nor the language of the Chinese. Language is constructed of words and music of notes. Words can be so joined together that wonderful tales can be told, but even more wonderful tales can be told by the combining of notes.

Man's æsthetic sense creates a perpetual desire for that which is beautiful — for new beauties, and the first beauty that he perceived could be obtained from the unbounded mass of musical sounds which are possible, was in combining them to form a succession. Harmony, or the sounding of notes simultaneously, was a much later development.

We ever turn to the Greeks when seeking the beginning of our music, for to them we owe the foundation of our system. Of their knowledge and use of melody we have substantial evidence in a few hymns to the gods which have been preserved through the ages. It is positively proved that they understood the relations which are recognized in harmony. There are certain intervals which are referred to as consonances, and others which are termed dissonances. A consonance is the combination of sounds which when sounded together has an effect upon the hearer of being complete in itself and not needing anything to follow as an ending. It is similar to that inflection of the voice which is only associated with the end of a statement. It alone gives us the impression of completion. On the other hand a dissonance is the combination of sounds which when occurring together produce an impression of incompleteness. It is felt that something more is needed, just as when a speaker is interrupted his voice is at a pitch which tells that more is to follow. The Greeks possessed a realization of the consonance of the intervals of an octave, a fifth and a fourth, and used an expression concerning them which means a mixing of two things so that they are blended and form a compound. This is the same way in which they are now considered. However, there is no record of the practise of harmony by the Greeks. None of their writers have mentioned it and although there was in use a word, symphony, which carries in its etymology a reference to different tones sounded simultaneously, it more likely applied to the system of voices singing in unison, that is, giving the same tones, or of singing the distance of an octave apart. This primitive practise is by no means harmony in our sense of the word.

The first reference to anything resembling harmony that is worthy of serious consideration was made by a Roman writer named Colonius, living about the third century after Christ. He defined the intervals capable of producing symphony as the diatesseron, meaning fourth; diapente, meaning fifth; and the diapason, containing the two other intervals and thus identical with our octave. The next important record of the use of harmonious intervals is in the church of the Middle Ages. Isidore, who was Bishop of Seville about the year 600, was rather an extensive writer on miscellaneous as well as ecclesiastical subjects. He was a friend of Pope Gregory and his writings were considered of much worth during the medieval period. He refers to the combinations of simultaneous sounds and speaks of the intervals of an octave, a fifth and a fourth, as consonant intervals which easily lent themselves to practise.

Hucbald, a Benedictine monk in Flanders about the Tenth Century, wrote extensively of things musical and with many details showed that melody could be accompanied in a number of ways which were termed Diaphony or organizing. According to this system the melody was accompanied by itself taking certain intervals above or below, the two simultaneous tones which were usually employed giving it the name of diaphony, although it was permissible to make use of three tones at times. In other words, the accompaniment was composed of the same sequence of tones as was the melody, each tone at a distance of the same interval from the corresponding one of the melody. The intervals which were considered proper were octaves above or below, fifths above, fourths above, fifths above or fourths below, or fourths above and fifths below. Formerly melody had only been accompanied in the octave and the acceptance of these new intervals for practical use afforded many new possibilities for variety. However, even this new system appears crude to modern ears familiar with more elaborate harmony, but it must be remembered that this was the first attempt at sounding tones simultaneously, and although these intervals fail to recommend themselves to the harmony of today, without doubt they sounded beautiful to medieval ears. If such had not been the case they would surely not have enjoyed such general use. The system of diaphony has been greatly criticized and has even been referred to as "brutal," but it is not well to lose sight of the fact that we have no way by which to judge it for the condition of affairs — a condition utterly without harmony in any sense — is beyond our comprehension after the many centuries of its use.

Hucbald, who did much to establish the system of diaphony, did much for the development of harmony by also being instrumental in establishing the use of the intervals of seconds and thirds. He likewise figured extensively in the development of counterpoint. Throughout the history of harmony it has been a very difficult matter to keep the two forms distinct, harmony being the outgrowth of counterpoint and having been subsidiary to it for many centuries, but counterpoint is much more intricate and is usually discussed after harmony in the study of musical forms. However, even with the utmost care it is impossible to obviate all reference to counterpoint in the discussion of harmony.

Adam de la Hale, who was born about 1240 in Arras, is a romantic character in history. He was for a time a monk, but forsook his vows and married. Later he forsook his family and left his home and after various travels reached

Italy, where he died after a time. He was called the Hunchback of Arras, although he seems to have been without deformity. His "Jeu de Robin et de Marion" may be considered as the first specimen of comic opera and was first performed at the court of Naples in 1285. He was prominent in the use of discant, the name given at a later period to the accompanying part which had been added to the melody. The system began to assume importance and at an early date in the Fourteenth Century it acquired rules all its own.

As musicians become more venturesome in discant counterpoint appeared. The Troubadours were largely instrumental in creating this new development. They rather enjoyed the disrepute in which they were held by the churchmen, and in an effort to further irritate formed a custom of combining a hymn or chant with some merry song often sadly lacking in purity. The melodies of each, changed a trifle to fit them for their new use, were placed one above the other in a rude form of counterpoint, for this new musical form was nothing more than two independent melodies sounded together. It was, of course, necessary that they possess certain qualities in common so that they would not conflict in too great a sense, although without doubt they did not agree completely.

This marks the opening of a long era in music termed the polyphonic from the system of combining independent parts. Following the custom of combining two parts the next step was the combination of three parts. Compositions of this character appear in a crude and nebulous state early in the Twelfth Century, but had acquired a comparative perfection by the middle of the Thirteenth Century. Progress brought about the addition of new parts to be sounded together, and with each addition the increased multiplicity of sounds required more delicate handling and presented themselves more forcibly for attention regarding their harmonic relations, thus laying the foundation for independent harmony.

Harmony as we know it did not appear until the Sixteenth Century. Composers devoted their entire attention to the writing and arranging of independent parts. Each was a separate and distinct melody and all were fitted together in a manner that reminds us of a child fitting his blocks to form a design. Each melody was first carefully composed, and the most telling efforts were expended in producing individual perfection. When they had been combined they were very frequently happily related, but at many points there were sad dissonances. However, it soon became evident that these not only could be tolerated but by being subjected to certain conditions could be made to add beauty to the composition. This is one respect in which counterpoint and harmony are related, for it is on account of this extensive and necessary use of dissonant intervals by writers of counterpoint that they play such an important part in harmony.

Dissonances may in strictness be employed only when they are followed by the proper consonances so that their incompleteness is not evident. How to make them acceptable and beautiful to the ear occupied much of the attention of the contrapuntists, for, as we have seen, dissonances to them were a necessary evil. Ingenuity was afforded full play in arranging them properly, and, naturally, when counterpoint became superseded by harmony, this opportunity for ornamentation was not thrown aside; but the secret of many of the intricacies and beauties of harmony lies in the cunning manner in which these intervals are handled.

During the early half of the Sixteenth Century the chromatic scale appeared complete with twelve notes to an octave, and with the increased number of notes opened a possibility for more dissonances, and, as a consequence from arranging the dissonant chords, greater variety in composing. Music immediately acquired more life. Greater ingenuity came into play and even the music of the church lost its reserved dignity and the Gloria, the Kyrie, the Credo and the Agnus were sung to ballad and dance music far too frolicsome for propriety. Musicians lost sight of good taste entirely and allowed all other considerations to be subservient to the artistic combining of consonances and dissonances. The most absurd tunes were used in the masses and even lent their secular names to the sacred use, for instance; the mass of "The Man in Armor" and the mass of "With Two Faces and More" were in existence. At last the music became so unfitted for the use to which it was put that it was impossible to allow the abuse to continue and a reformation along this as well as many other lines was precipitated.

The foremost musician of the time was Palestrina (1524-1594) who was given his name from his birthplace, Palestrina, near Rome. Palestrina's musical ability gained recognition and between 1550 and 1555 Pope Julius III. appointed him as one of the twenty-four collegiate singers in the Pope's private chapel, although the act was greatly in violation of the rules governing this selection. Palestrina was trebly ineligible for he was a layman, was the father of a family, and had a particularly bad voice. The position was not permanent, for in about two years the Pope died and the succeeding Pope only lived twenty-three days, when Pope Paul IV. ascended to the Papal chair. Prompted by a desire to adhere to the rules of his office and influenced by the jealous clergy who were Palestrina's associates but who disliked him because of his superior musical qualities, the Pope displaced him from his position and Palestrina was left to face most severe poverty and hardship for a brief time. However, his greatest triumph was before him. The Council of Trent when considering the abuses so prevalent in the church music were at a loss to discover a remedy and even contemplated discarding music entirely from the service. Fearing this to be a too extreme measure they modified it by ordering Palestrina to compose three masses which should possess the qualities of truly religious music. In 1565 the masses were submitted to the Council and the first two were received with great joy, for they indeed seemed fitted for the use for which they were designed. The third possessed even more wonderful qualities and completely entranced the hearers. Pope Pius IV. declared that "of such a nature must have been the new song heard by John the apostle in the heavenly Jerusalem." It was dedicated to Pope Marcellus II. Palestrina had now established a standard for ecclesiastical music which is still followed, in which, however, the use of chromatic notes was strictly forbidden. Palestrina, upon whose tomb is the inscription "Prince of Music," left nearly one hundred masses and hymns, besides about sixty motets and other compositions. He is said to have been the first to combine the art with the science of music.

The example set by Palestrina which did away with chromatic notes was a drawback to the development of harmony, for in the church, the greatest branch of music, the means of affording variety was cut off. The secular branch of the art still held out possibilities and the all too brief use of the chromatic scale had shown composers what might be done.

This was an epoch-making period. A great desire to emulate the example of the Greeks, who were then considered to have had the most perfect music, led musicians to increase their little store of historical facts with many suppositions until they had little or no idea of what Grecian music might have been. They multiplied and intensified the dissonances, for in order to make them bearable composers had to resort to all manner of ingenious methods, and the more difficult the task the more like the ancient music they felt their new music to be. In striving to imitate they instead created what has since lived as the greatest of musical forms. Monteverde was a most audacious composer of the period and dared to use many unusual combinations of notes. He created readily, but failed to polish and the specimens of his compositions which remain are incorrectly written. However, he introduced chords and progressions without which music could never have attained the dramatic grandeur which is now possible. In 1600 he and a few associates produced what they hoped was an exact duplicate of the Grecian style, but which instead was the first opera ever written. Its name was "Orpheus and Eurydice."

A long period was occupied while harmony was becoming separated from counterpoint. As has been seen, counterpoint consisted of several melodies founded simultaneously and consequently is made up of groups of notes sounded together, although these groups did not occupy the interest of composers as groups, but only in a dissected condition, each note being independent of the others of the group and only bearing the proper relations of tonality to the other notes of its respective melody. By thus combining melodies the effect of harmony was gained.

Gradually the groups, or chords, as they are called, gained a foothold to the interest of musicians and there came into existence a realization of the beauties that could be gained by progressions of chords, although musicians were not conscious of the change that was occurring. Church music had been arranged as counterpoint, accompanied by the organ. The organ can sound many tones simultaneously and it was very easy in the absence of any of the voices to have the instrument fill in the vacancies to fulfil the contrapuntal effect. In order to enable the organist to do this the music was written with what is known as a figured bass. The bass alone was written out and the other notes of the chord were indicated by figures placed above the notes, representing the intervals, counting from the bass upwards, at which these notes should stand. This bass was called basso continuo (continuous bass).

It seems to have been first employed by Peri, Monteverde and others about 1600, in the accompaniments of their recitatives and songs. Its use survived for a long time, for, e. g., it is to be found in the scores of Bach and Handel, and even later. It is practically no longer employed in this way. Until this point it has been difficult to not encroach upon counterpoint when describing the rise of harmony, but now this difficulty is past and harmony begins to assume the importance it now holds. First it was an accidental effect produced by part-writing, later it insinuated its importance upon the attention of the writers of counterpoint, of which it remained a dependent part, until at last it attained its true importance and stood alone and independent in readiness to grow into its rightful position in the scheme of things musical.

The Frenchman, Jean Philippe Rameau, was the first well-known writer who treated independent harmony theoretically and attempted to explain the reasons for it and the rules governing it. Rameau was indeed a musical genius. His gifts early manifested themselves and as he was of a musical family his training was for their cultivation. He was exceedingly versatile and was excellent as composer, theorist, organ and clavichord virtuoso and teacher; to him belongs the honor of having first observed and grasped the true philosophy of harmony.

The student who desires to write music makes a thorough study of the production of standard composers in an effort to learn what combinations of chords and what progressions of chords create good effects in much the same manner as the aspiring author studies the grammar of his language for correct forms and the classics of literature for proper and pleasing style.

Still more interesting to discover that which is best is the reason which creates good qualities. Music as an art differs from painting and sculpture in these reasons. In the last two genius merely copies beauties already in existence, and a reason for the beauty of the production of these arts lies not in the productions themselves but must be sought for beyond in that which has been copied. Music, on the other hand, possesses beauties newly created and in the art itself must be found the explanation.

These explanations have little basis on any natural laws, and theoretical writers have created hypotheses, many of them incorrect, until a study of the theories or systems of harmony tend to confuse, and many of them are without practical use to students. Such men as have proved themselves truly capable of handling this subject have shown how artificial are the foundations of the systems of harmony. They are artificial in the same degree as are the foundations of the rules governing grammar. Here again is a striking analogy between the two arts of literature and music. We who have been born to a use of the English language read Chaucer and unconsciously wonder at the unnatural and awkward phraseology. We consider how much more flowing and easy of comprehension is the language used in the Twentieth Century until our better judgment reminds us that it is entirely beyond our power to decide what is correct or beautiful in anything that is so absolutely governed by arbitrary laws. In the same manner the musical compositions of the Elizabethan period appear to us childish in simplicity and at times appalling in awkwardness. Even the simple melodies and harmonies that occupied the attention of amateurs during the first half of the Nineteenth Century are ridiculed by the more sophisticated amateurs of the present who have tasted of a knowledge of the classical composers. The past sixty years have witnessed an example of the complete change which the tastes of the public may undergo.

There are two senses which act in determining that which is beautiful in music: One is the physical sense of hearing which has in truth established certain fundamental and unchangeable rules, to be explained later. The other is the æsthetic sense which differs in individuals as to its dictates. Beyond the few laws laid down by the physical effect of certain tones, combinations and progressions, both senses are prone to change with education and environment and they establish a most artificial standard of right and wrong. Hence it must only be expected that this standard will change in the future as it has done in the past.

The rules that do exist fail to apply in all cases and, as in grammar and orthography, there are likely to be more exceptions to rules than there are rules themselves, thus tending to make the study of the philosophy of music complicated and confusing. As has been seen, harmony is the effect of two or more tones sounded together. These groups or chords may each carry a sense of completion as each word in a literary production may express an idea. However, the composer must not only aspire for beauty and perfection in chords but he must consider with equal care the progressions formed by combining chords, and both subjects are included in the study of harmony.

The most simple form by which the effect of harmony is produced is in two sounds taken together. These combinations possess a great importance, for in them are comprised the elementary germs of all harmony as the more complex combinations can be analyzed and found to rely upon these germs. Among these combinations are some which please the ear and others which are less agreeable. They are known as consonances and dissonances, respectively.

A scientific explanation of this phenomenon involves the explanation of the formation of single tones. All tones are compound affairs. They consist of a fundamental and a number of harmonies or partials. An absolutely pure tone is only found in theory, for it is only the fundamental or foundation of the tone that is regarded and which gives a name to the tone. It is the strongest part of the tone and the casual ear does not realize that what appears to be a pure, simple tone is a mass composed of the one strong fundamental and a group of weaker, less noticeable, harmonies. There is consequently no tone which fulfils the requirements of an ideal consonance, for some of the accompanying harmonies do not blend well with the fundamental. Those harmonies which are nearest to the fundamental blend best with it. There are always present some harmonies which bear a disagreeable relation to the fundamental, and it is when they are too much in evidence that we hear a tone which does not seem to be homogeneous whole but appears to be composed of an insufficient tone itself accompanied by weaker and even less complete tones, the entire group producing a disagreeable noise. Instrument makers employ their cunning in silencing the unpleasant harmonies and in making the fundamental sound as pure as possible, although some of the harmonies are retained as they add a charm to the tone.

Just as those harmonies situated nearest to the fundamental possess more consonance with it than do those farther away, the simultaneous combinations of octaves, fifths and fourths possess greater consonance, for these are the harmonies possessing the simplest ratios with the fundamental, as has been shown in the chapter on tonality. They are not the smallest intervals by any means but their consonance rests upon the simplicity of their ratios.

The ratio of the ideal consonant interval is as 1 is to 1 which, of course, is a unison and it is only logical that those tones bearing the next simplest relations would possess the next greatest consonance. Musicians have established arbitrary decisions as to the consonance and dissonance of certain intervals and in the discussion of harmony it is necessary to recognize the distinction thus determined upon. Those intervals whose ratios are expressed by any of the figures from one to six are consonances, all others except those that are merely a former interval doubled as 2:6, 1:12, 4:8, 6:12, etc., are dissonances. The tables of consonances and dissonances read thus:

	CONSONANCES.	Ratio
Perfect	Octave	1:2
	Fifth	2:3
	Fourth	3:4
Imperfect	Major third	4:5
	Minor third	5:6
	Major sixth	3:5
	Minor sixth	5:8

DISSONANCES.	
Major second	8:9
Minor second	15:16
Major seventh	8:15
Minor seventh	9:16

Dissonant intervals produce the effect of being rough or harsh, a quality which is due to reinforcements of the intensity of the sound occurring at regular intervals. We have learned that difference of pitch in tones is due to difference in the number of vibrations per second which cause them.

A string which is made to vibrate transmits its motion to the air about it in the form of waves which travel just as water waves travel through the water. If a stone is thrown into a pool there will immediately appear upon the surface irregularities, the water seeming to rise and fall in waves. However, the motion in the water is not horizontal but is longitudinal. The entrance of the stone into the water compresses the adjoining atoms, the compression causing the surface of the water to rise, forming the crest of a wave. In turn the compression is transmitted to the next adjoining atoms causing what had been the crest of the wave to relax and to become a trough. The transmission of motion continues, the force of the contact growing less and less until all effect dies out and all disturbance disappears from the water. Just so, the vibrations of a string, a column of air, or any vibrating substances are transmitted to the air in the form of waves, which travel as do the water waves until the motion reaches the auditory nerve, and becomes sound.

Each vibration of a string produces a distinct wave in the air It is easily seen that if two tones, one caused by vibrations occurring at the rate of 256 per second and the other at the rate of 246 per second, are sounded together the one whose vibrations occur more rapidly must gain on the other to the amount of ten vibrations during a second. The waves will, in a sense, pass each other. In a similar manner allow two men to walk around a circle, one at the rate of fifty-six times an hour, and the other at the rate of forty-six times an hour. The man going at the more rapid rate of speed will pass the other ten times during the hour.

During the passage of the sound waves through the air there will be instants when what represents the crest of one wave is in a position analogous to the trough of the other wave, at which instant they would counteract each other and their power will be destroyed, producing instantaneous silence. Naturally these instants of silence which constitute what are called beats. will occur at regular intervals. breaking the continuous tones into pulsations and causing them to be recognized as dissonant. The number of beats per second will be equal to the difference in the vibration numbers of two tones. In a unison, the ideal of consonance, no beats occur, but as tones diverge in ratios the number of beats per second grows more rapid up to the point, so Helmholz affirms, where thirty-three occur, as when C and D flat are sounded together. Beyond this point the beats lose their intensity in inverse order as they gain in speed per second until their disagreeable effect passes away. In treble C and E in the second octave above middle C 128 beats occur, but there is no perceptible dissonance, as the beats are so short and have such meager intensity that there are no appreciable reinforcements of strength in the sound. The united tones appear continuous, there seeming to be an entire absence of the pulsations. The intensity of the beats increases in proportion to the loudness of the notes which cause them.

In the study of harmony it is necessary to understand the names by which the degrees of the scale are known to musicians. In tonality we have learned that all other degrees must bear a certain relation to the first, which has heretofore been spoken of as the key-note. Technically it is known as the Tonic, a name derived from an abbreviated form of the Latin word, Tonica, meaning tone and signifying that this is the chief tone of the scale.

The next most important degree is the fifth above the tonic and is called Dominant, because of the manner in which it appears to rule over the other degrees of the scale. Next in importance comes the Subdominant, or lower dominant, which is situated a fifth below the tonic. When inverted to preserve the upper succession of degrees it becomes the fourth above the tonic. The third degree is called the Mediant, because it is midway between the tonic and the dominant. The sixth degree is called the Submediant or lower mediant. It derives its name in a manner similar to that of the mediant, since it is situated half way between the tonic and subdominant. The second degree is called the Supertonic, as it is the one just above the tonic. The seventh degree receives the name Leading Tone from the tendency to rise or lead up to the tonic, which the ear demands that it possess. In their successive order the names of the degrees are Tonic, Supertonic, Mediant, Subdominant, Dominant, Submediant and Leading Tone.

Until this point we have dealt with combinations of two tones only. These, however, do not constitute harmony in the true acceptance of the term. In order to produce the effect of harmony it is necessary to combine three or more notes into what is called a Chord, a name derived from the French word, accord, meaning sounded together. The notes of a chord are placed one above the other with an interval of a third between. When the chord is composed of but three notes it is termed a triad. The lowest note is designated as the root of the chord and it is from this note that the other notes of the chord can be spelled or built up in thirds. The second member is at the interval of a third from the root and the third member at the interval of a fifth. Any tone bearing a relation to the root which fulfils these requirements is termed a chord tone. If the triad comprises a major third and a perfect fifth it is called a major triad, but if it comprises a minor third and a perfect fifth it receives the qualifying name of minor. If the third is a major one and the fifth augmented the triad is an augmented triad. If, on the other hand, the fifth is less than a perfect fifth the interval is a diminished fifth and the triad which contains it is a diminished triad, the third in it being a minor third.

When glancing over a page of music it is indeed hard to realize that all the chords are merely superposed thirds. Their changed appearance is due to the inversion of certain members of the chord. Each triad is subject to the first and second inversions. By the first inversion the second member of the triad takes a position as the lowest member of the chord, or in the words of musicians, is in the bass. The lowest tone of a chord is said to be in the bass, the next in the tenor, the third in the alto, and the fourth in the soprano. The first inversion is called the Chord of the Sixth, for the second member occurring as the bass of the chord is an interval of a sixth from the root. The second inversion of a triad occurs when its third member is in the bass and it is called the Chord of the Sixth and Fourth, for the third member forms the interval of a fourth with the root and an interval of a sixth with the second member. When seeking the root of a chord it is necessary to find that tone from which the others may be spelled up in thirds. Therefore, its most natural position, and, in practise, the most satisfactory, is at the bottom of the chord. This fact is recognized in the adoption of the custom that every piece of music shall close with a chord in which the root occupies this position.

It is worthy of note at this point that in harmony the interval of an octave does not find a place, but when any of the tones of a chord are doubled by the introduction of their octaves, the doubled tones are considered as one. The root is generally the best tone that can be doubled, although, when it is found necessary in order to bring about a progression that sounds well, one of the other tones may be doubled.

The intervals of the major diatonic scale are arranged thus: 1—2—3‿4—5—6—7‿8. The interval of a tone is designated by —; that of a semitone by ‿.

It will be seen that if each one of the first seven degrees be taken as a root a triad may be formed, although not all of them will contain intervals of like magnitude. Beginning with the first degree as a root, the triad will contain the degrees 1, 3 and 5. The interval of a third between the root and the second member is a major third and the fifth between the root and the third member is a perfect fifth, the chord being called a major triad.

Using the second degree as a root the triad would contain the degrees 2, 4 and 6. The interval between the root and the second member is a minor third instead of a major third, but the interval between the root and the third member remains a perfect fifth. Hence, this chord is a minor triad.

Using the third degree as a root, a triad will contain the degrees 3, 5 and 7. The fact that the intervals of this triad are of the same magnitude as those of the preceding triad makes it self-evident that this also is a minor triad.

Using the fourth degree as the root, a triad will contain the degrees 4, 6 and 8. The intervals of this triad prove to be of the same magnitude as those of the triad on the first degree, and the chord is a major triad.

Using the fifth degree as the root, a triad will contain the degrees 5, 7 and 2, and the triad will be major.

Using the sixth degree as the root, a triad will contain the degrees 6, 8 and 3, and upon inspection the chord proves to be a minor triad.

Using the seventh degree as the root, a triad will contain the degrees 7, 2 and 4. This combination brings about a new chord. Hitherto the third had been the only interval to change, and the fifth has remained perfect. In the triad on the seventh degree, the third is minor and the fifth is diminished; hence, the chord is known as a diminished triad.

By this method we find that the triads formed on the first, fourth and fifth degrees are major, those formed on the second, third and sixth degrees are minor, and that formed on the seventh degree is diminished. In the key of C the tones comprising the triads would be named as follows:

First degree as root	C E G
Second degree as root	D F A
Third degree as root	E G B
Fourth degree as root	F A C
Fifth degree as root	G B D
Sixth degree as root	A C E
Seventh degree as root	B D F

We learned in the preceding chapter that in order to preserve the sequence of intervals proper for the major mode the key of G requires the omission of F as it is found in the key of C, and the introduction of F sharp, the tone half way between F and G. Consequently in the key of G the tones forming the triads would be named in the following manner:

First degree as root	G B D
Second degree as root	A C E
Third degree as root	B D F sharp
Fourth degree as root	C E G
Fifth degree as root	D F sharp A
Sixth degree as root	E C B
Seventh degree as root	F sharp A C

In the mere matter of names most of these triads bear a striking similarity to those found in the key of C. However, it will be seen that in the key of C, D occurs on the second degree and the triad formed with it as a root is a minor triad, while in the key of G it occurs on the fifth degree and by the introduction of F sharp the triad becomes major. In the key of C, F occurs on the fourth degree and the triad formed with it as a root is major, but in the key of G its substitute, F sharp, occurs on the seventh degree and the triad of which it is the root is diminished. In a similar manner there may be noticed other differences in the triads here named and there may also be noticed the numerous and even more pronounced differences brought about by using as tonics tones which necessitate the introduction of several chromatic tones in order to preserve the proper sequence of intervals. The great variety of combinations that may thus be brought about is also apparent.

A like number of triads may be formed on the degrees of the minor scale in the harmonic form of which the intervals occur in the following order: 1—2‿3—4—5‿6+7‿8, the interval of a tone and a half being indicated by +.

Following the same method of procedure as in the case of the major mode it will be found that major triads can be built on the fifth and sixth degrees, minor triads on the first and fourth degrees, diminished triads on the second and seventh degrees, and because of the interval of a tone and a semitone between the sixth and seventh degrees an augmented triad is built on the third degree.

If the tonic in the minor mode is changed there will appear a similar number of differences in the triads as there did in the major scale. There are fourteen diatonic triads in each key in the minor and major modes combined, and since each triad is subject to two inversions there is a very large number of combinations which upon analyzation prove to belong to this class.

By placing another third on the top of a triad the chord of the seventh is formed. The new tone is the interval of a seventh from the root and consequently creates a dissonant effect in the chord. Although it is possible to build up a chord of the seventh on every degree of the scale, that one which has as a root the fifth degree or the dominant is the most important and is used most frequently. From its root it received its name of Dominant Seventh and is the same in both major and minor modes. In both modes the chord of the seventh on the supertonic is second in importance and the chord of the seventh on the leading tone is third. The one on the leading tone in the minor mode, however, is more important that that in the major. In the major mode it contains a minor seventh; but the diminished form of the chord is much used in the major, the proper or raising the root interval being secured by lowering the seventh of the chord a half-step by the same interval. The other chords of the seventh are less often used.

When or why chords of the seventh were invented cannot be stated. It is safe to suppose that because of their dissonant interval of a seventh they recommended themselves to such composers as were seeking for means of obtaining variety. The chord was a dissonance requiring resolution, that is, a following consonance. In the early history of music it was considered imperative that, by way of preparation, the tones which created the dissonance, the seventh in the case of the chords of the seventh, should appear as a member of a chord immediately preceding the dissonance, but as early as the close of the Sixteenth Century Monteverde is found using the chords of the dominant, leading tone, and diminished sevenths without any attempt at preparation. This points to an early use of the chords, for after the introduction of the new dissonances enough time must have elapsed to allow it to become familiar to the ears of the world and a still longer time to allow composers to acquire enough assurance in its use to disregard the positive rule of preparation. The other chords of the seventh were not used in this manner until two centuries later, when Bach introduced the custom.

So far only diatonic chords have been discussed, in other words, only chords whose roots can be readily discovered and whose intervals conform to those of the diatonic scale in the major or minor mode. They have been built up systematically and can stand the test of analysis, for it is possible after any inversion to discover the root, the third, and the fifth. There are, however, certain combinations in which the diatonic tones have been chromatically altered, which combinations have proved so effective and useful that they have acquired an individuality and are used as generally as are the diatonic chords.

This chromatic alteration of which we speak must not be confused with the chromatic tones that are necessitated by certain key-notes, such as F sharp in the key of G. There F sharp is as essential a part of the diatonic scale of G as is F natural of the diatonic scale of C. However, if in the key of G the triad D F sharp A were formed and F sharp were lowered to F, F would be chromatically altered and the new tone would be foreign to the key of G. In like manner if in the key of C the triad D F A were formed and F were raised to F sharp, F would be chromatically altered, the new tone being foreign to the key of C. When a chromatic chord has been used the tendency is to progress to a chord containing tones a semitone above or below those which have been altered, the progression continuing in the same voice. This, of course, presupposes that there was an interval of a tone between the chromatically altered tone (before its alteration), and the tone to which the progression is made. The established altered chords in some instances are difficult to classify when undergoing the process of analysis and the reasons which brought about their peculiar alterations at times puzzles the theorist. They are most used in the unaccented part of a measure, and are often preceded by the real tone of the chord, allowing the hearer to perceive in advance what the chord would be in its normal condition. Nevertheless, some very striking effects are produced by directly introducing a chord in its altered form. More than one tone of a chord may be altered the same way, and some may be raised and some lowered.

Harmony, which to the uninitiated has the appearance of being composed of notes built upon each other in any manner which may satisfy the caprice of the composer, consists, in fact, of a series of chords which have been built up according to an established system, a system based entirely upon arbitrary laws. These specified and systematically arranged integers are not permissible unless they can be intellectually verified. By analyzation it must be possible to show that the chords have been built up from a root in the approved manner, or they are debarred from being classified as proper harmony.

It will be seen that a composer is always supplied with material for his work. He is furnished with a prearranged assortment of chords which he may link together as he considers best, his observation of the work of others telling him what will be acceptable. He should understand the relations of one chord to another and the effects produced by certain successions and should think in chords instead of in words, recording his impressions by means of notes. To the well informed musician a chord is as intelligible as is a word to an ordinary reader and at a glance he can determine its root and formation.

First the system of building chords was established, then musicians by experiments found that certain chords were more effective when following certain others, and their discoveries began to take on the character of rules governing progressions from chord to chord, for very naturally those progressions which were considered most pleasing and satisfying were repeated until their use became established. Fundamentally progressions are based upon mutual relations existing between the chords, and, as a consequence, unity is preserved by grouping the chords according to keys.

By introducing a new simile the ever-ready supply of chords may be likened to the pigments which the artist has upon his palette. Both artists and composers are limited by certain customs, but each must possess the faculty of understanding how to combine his material so as to depict beauties which the artist sees and the composer mentally hears. It is upon this faculty that genius rests.

In all the arts a practical use is made of the fact that the appreciation of the beautiful is increased when it is brought into contact with that which is not beautiful. It is this phenomenon which insures the acceptance of dissonances in music. It is true that there are certain dissonances which are integral parts of the chords with which they appear, such as those in the chords of the seventh, and which are deemed essential to harmony, but there are still other dissonances wholly artificial and foreign to the harmony which are introduced for no other purpose than to create a feeling of the necessity of consonances, by that means making the latter even more pleasing when heard. This method of ornamentation adds grace and spirit to music which might otherwise be grave and monotonous.

If throughout a piece of music all the members of every chord progressed simultaneously to the following chord there would prevail a sameness of motion and a striking absence of expression in the musical sentences, the words of which are represented by the chords. A new interest is created by introducing an irregular method of binding together or connecting the chords. This irregular connection will naturally arise if all the members of a chord do not progress simultaneously, allowing one or more to linger in their places while the others become component parts of the next chord, the delayed members forming a link between the two chords. By this means a dissonance is created because parts of two chords are momentarily sounded together. This chaining together of harmonies is technically known as suspension.

The sounding of the tone to be suspended as a member of a chord is termed the preparation, the holding of that tone over the chord of which it forms no part is the suspension, and the progression of the delayed member to its proper position in the new chord is the resolution. Throughout the process the delayed tone or tones must occupy the same part. They either may be merely held over or tied until the new chord is sounded or they may be repeated with it. When tied the fact is signified by connecting the two notes with a curved line.

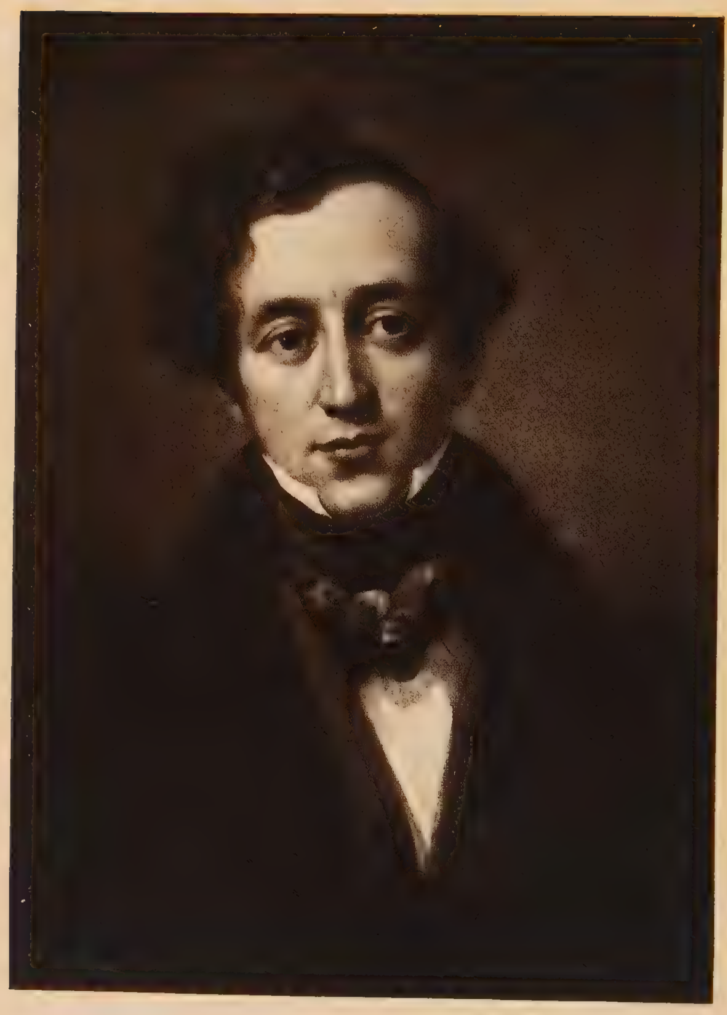
Suspensions usually occur on the accented beat of a measure. Their harshness is only limited by the composer's idea of what is permissible and by the possibilities of a proper and satisfactory resolution. The more intense the dissonance of the suspension, if there follow a thoroughly satisfactory resolution, the more agreeable is the effect. The suspension may resolve up or down and notes may be inserted between the suspension and the resolution.

Suspension was the first method discovered for introducing unessential dissonances. Formerly only those which are natural to the harmony had been accepted. Of course, the so-called essential discords, such as chords of the seventh, had been the outgrowth of man's ingenuity in the same degree as were suspensions, but all things through extensive use grow to be considered natural and lose their power to excite interest. Such was true of so-called essential discords and something new and consequently unnatural was sought, the search leading to the introduction of suspension. Monteverde did much to develop this device. With his daring and ingenuity he used much harsher suspensions than his predecessors had deemed permissible. Their first steps in the departure had been faltering, and a realization of the pleasing effects to be obtained were only reached gradually.

We will now proceed to other varieties or ornamentation in which dissonances are employed. A passing tone is one that is foreign to the chord with which it sounds and must be approached and left by the interval of a tone or a semitone, the motion continuing in one direction. The number of passing tones which may occur is only limited by the distance between two harmony notes and may be one or more. They may be the consequence of melodic motion. The melody in this case may be of an elaborate character, but may be accompanied by an extremely simple harmony, the harmonic intervals of progression being much slower than those of the melody. For instance, the harmony may be written in whole notes and the melody in quarter or eighth notes. The necessary changes in pitch due to the more rapid progression of the melody bring into use tones which are dissonant with the harmony, but their dissonance is only momentary and is immediately remedied by a following consonance. The use of passing tones dates from the Sixteenth Century.

Similar to the passing tone is what is variously termed returning dissonance, auxiliary tone, and broderie. It differs from the passing tone in that the dissonance is not interpolated during the passage from one tone to another, but returns to the consonance from which it came. It may occupy a stronger or a weaker beat in the measure than does the harmony note to which it belongs and the distance between the two may be a tone or a semitone above or below.

An Appoggiatura, by some wrongly termed an unprepared suspension, is a dissonant tone entirely foreign to the chord with which it sounds, but which by resolution passes into the proper member of the chord whose place for the time it had usurped; it differs from a suspension in that it is not prolonged from the preceding chord. It is usually on the accented beat of a measure. When an appoggiatura, instead of passing to its resolution, skips to an appoggiatura on the



FELIX BARTHOLDY MENDELSSOHN
1809-1847

Born in Hamburg. The world owes to Mendelssohn a double debt of gratitude, for, besides composing some of the finest music ever written and founding a great musical conservatory at Leipsic, he revised the works of John Sebastian Bach and taught us to appreciate them.

In 1829 Mendelssohn first went to England, where he was most highly appreciated.

other side of a note of resolution it is a double appoggiatura. Appoggiaturas may be used in two or more parts simultaneously.

Anticipation (the opposite of suspension), is made by one or more unaccented tones, usually shorter in value than the following ones, which move to the appropriate tone or tones in the next chord in advance of the other voices.

Pedal tones are still another method of introducing artificial dissonances. They probably derived their name from the fact that such notes appear extensively in organ scores, and are played upon the pedals. The fact that they are also called organ points assists in this conclusion. Pedal tones are sustained by one or more voices through a succession of harmonies forming a consonant part of some of them but entirely foreign to the rest. It is generally found in the bass, although this need not always be the case. The pedal tone is usually the tonic or dominant, the latter being the more common and the tonic appearing more often near the end of a movement.

It is indeed striking to note how hedged in by rules are these oramental effects which themselves are but the outgrowth of man's ingenuity at a comparatively recent date. They have served as a nucleus around which have gathered rules resulting entirely from what musicians have considered beautiful.

Not alone does harmony have to deal with the simultaneous sounding of tones in chord but the progressions from chord to chord are vitally important. No wrong will be committed if any chord of any key follow a chord entirely foreign to it. However, the composer is telling a story or describing an emotion and he must arrange the progressions in such an order that he may logically carry out his purpose. Hence, to produce valuable music, each new combination of tones must bear some relation to the combination which precedes it. In this respect the rule is not akin to the multitude of purely arbitrary rules which govern music, but has a reason to uphold it. Nevertheless, the reason itself rests upon custom and upon man's idea of the beautiful, as shall be seen later.

In order to thoroughly appreciate and enjoy music the mind must act in the same manner as it does when listening to an oration or when reading a book. Unless a break occurs which is recognized as intentional and significant of a change of thought no abrupt transition is countenanced. There must be a continuance of ideas along a similar vein until a new subject is introduced, when another family of thoughts may be ushered in.

Students of harmony have gleaned through observation of music which has been accepted and is still deemed proper that certain relations have been found most satisfactory, and these relations have been repeated time and again until the rules governing them have grown into the rules governing harmony.

There are various ways in which chord relationships may exist. That which appears most simple and most obvious is that the chords should have the same tonality, that the tones which form them should belong to the same key of the same diatonic scale. Chords can be formed upon the various degrees of the scale, and if these chords are not dissonant the passage from one group to another appeals to the ear as being entirely proper and to the mind as possessing a logical sequence. Another device by which the ear is made to realize a proper relation to exist between chords is by having one or more notes common to both chords.

There are also physical reasons which are allowed to figure in determining what are considered proper relations to exist between them. When discussing the fundamental and its natural harmonics it was learned that the octave as the first harmonic bears the simplest relation to the fundamental, but it has also been learned that the interval of an octave is not considered in harmony. The harmonic bearing the next simplest relation is that which is the interval of a fifth from the fundamental and the next simplest relation exists between the third harmonic and the fundamental which are separated by the interval of a fourth. The fifth assumes the place of dominant among the degrees of the scale and the fourth that of subdominant. As long as harmony has been in existence the chords on the dominant and subdominant have been recognized as bearing the closest relation to the chord on the tonic, but it was not until Rameau, in 1722, that the explanation of this custom involving the relation of harmonics to their fundamental was advanced. It is peculiar that these three chords contain between them every note of the scale. Throughout every composition they are used more frequently than any others and thus serve in preserving unity and in firmly impressing the key upon the mind of the hearer.

A cadence is the ending of a phrase in music and that found at the close of a composition is composed of the chord of the tonic, which is always at the end of a composition, ordinarily preceded by the chord on the dominant or that on the subdominant. That containing the chord on the dominant is termed the authentic cadence and is used much more frequently than that containing the chord on the subdominant called the plagal cadence.

The importance of the dominant and subdominant chords shows in what degree the laws of acoustics affect the progressions of chords although these progressions were recognized by musicians before the study of acoustics became a part of the study of music. Musicians instinctively demanded that the three chords under discussion should be available. In major scales they are all major triads, the second member of each forming with the root an interval of a major third and the third member an interval of a perfect fifth. In order to produce the desired effect the tones of the chords must bear these relations, and it was found that among all the authentic and plagal church modes or the ancient Greek modes as arranged by Glareanus and employed by secular musicians only one of the latter group, the Ionian, possessed intervals which allowed the degrees of the scale to be arranged in the proper manner. It was doubtless discovered when seeking a means of obtaining variety that in the Æolian mode these three important chords could be arranged with the intervals of a minor and a perfect fifth, thus forming the most striking contrast to those of the major scale, and still preserving a strong degree of similarity. The Æolian mode has descended as one of our modern minor scales.

These chords have been considered consonant and the relations which must exist between them are in a way very fundamental, the complications of harmony appearing with the introduction of dissonant intervals. The old rule that all dissonances must be prepared and resolved grew out of a custom brought into existence by the feeling that a consonance must follow a dissonance. This is perfectly logical, for a word cannot be inserted in a sentence where it has no meaning without robbing the sentence of all logical value; thus a dissonant chord is generally preceded by something very specially related to it and is always followed by something else bearing a close relationship. Students of harmony learn this as one of the rules to be observed in writing music, but modern composers have assumed a broader and broader interpretation of the rule until they overlook it in so far as the preparation is concerned and precipitate a discord upon the ear of the hearer without having established any previous natural relation, also often disregarding the old custom of following dissonances by consonances.

Even an untrained ear can observe the incomplete effect of a dissonant chord, and unconsciously expects the following consonance, but it is seldom that the reason why the resolution of a dissonance has become customary is investigated. Immediately the answer comes that the reason is purely æsthetical, as are nearly all the reasons for the phenomena of music. The physical reason why certain combinations of two tones are consonant and others are dissonant in no sense constitutes a reason for the progression of chords containing these intervals. The mind derives real pleasure only from dwelling upon agreeable impressions, although it temporarily tolerates those which are disagreeable because it is the latter which produce excitement and tend to accentuate the agreeable impressions. We speak of a novel or a drama as interesting when it embodies more or less exciting situations, involving anxiety and distress, but how prone we are to disparage one which does not carry these situations to a happy or more settled close, in other words, to a proper resolution. Our æsthetic sense in nearly all cases requires an agreeable sequence of events. In like manner the mind agrees to dwell momentarily upon dissonant intervals, but the unsettled condition which thus arises must not last but must give place to the more soothing consonance. Dissonances are introduced for the same reasons as are the tense situations of the story or of the drama, that is, to satisfy the unconscious demand for excitement or change which is ever present.

The writer of music must not only realize that dissonance must be followed by consonance but he must understand the particular manner in which the progression takes place. Counterpoint was the birthplace of dissonances. Strictly this branch of the art deals with voice, and it was necessary that the passage from the discord to the concord should be made in the easiest way possible, which was by means of single diatonic steps. It was considered that an especial effort was required for a voice to properly pass to a tone forming a discord with another voice and the custom of preparation now appeared, for it was far easier to retain a tone from a preceding concord than to attack an entirely new one, creating a discord, so the voice which was to introduce the discordant tone was allowed to have it in the preceding chord. It was likewise considered especially laborious for the voice to leave the discord, and the single step at once recommended itself as the most simple method. The fact that resolution is more generally affected by discant than by ascent is explained by the impression of increased effort given by heightened pitch. It requires an exertion to reach higher tones, which is not the case in descending to lower ones. In the latter case the voice may be allowed to relax somewhat.

Beyond the two general principles that a chord should possess an easily recognizable relationship with the one preceding it, and that dissonant notes should pass to their proper places in the next chord by the easiest method possible, philosophy cannot assist in determining the progression of chords, but the resolution of dissonances must be accomplished by applying the most expedient means. There are various rules that may be applied in all cases, and it is the composer's right to select that one best fitted to his purpose. There was a time in the history of harmony when only one resolution was considered proper for each discord, but now the composer may allow his own fancy to dictate the method he will employ and the world is being trained to accept the most unusual resolutions as satisfactory.

Modulation, the passing from one key to another, is one of the most important departments of music and to be handled well requires thorough musical education on the part of the composer. If a musical composition were written in but one key there would result a monotonous effect, for the material at the disposal of the composer would be too limited to afford a refreshing variety. Therefore, more than one key is used in compositions having a length of more than a few measures and the methods of passing from key to key and eventually returning to the first key in order that the music may end with the original tonic, comprises much that is intricate and much that requires both art and technique.

Certain keys are more closely related than are others. Hence, it is most natural to pass from one key to a nearly related one. Related major keys are those whose tonics are consonant; the more perfect the consonance the closer the relationship. Any major key is most closely related to its dominant and subdominant and to the relative minors of these three keys. Any minor key is most closely related to its dominant and subdominant and the relative majors of these three keys.

There are three methods of modulation in common use: the diatonic, the chromatic and the enharmonic. In diatonic modulation only chords which are entirely diatonic in the keys concerned are employed. It has been noticed that certain chords may occur in two keys although they will be situated on different degrees of the scale. Such chords are called common chords and are employed in diatonic modulation. If the key of C has been in use and the triad on the dominant, G B D, is employed, it will be seen at once that this same chord occurs on the tonic of the key of C, hence, although only chords in the key of C have been used previous to this chord, after its introduction chords of either the key of C or the key of G may follow, and in the case chords in the key of G are used modulation has taken place. It is only necessary to establish the new key, which is done by observing its tonality through a progression of several chords. Passage to remote as well as to related keys may be made by common chords, although the process is less simple. It is done by means of transition or intermediate modulations. The new key must be reached by passing through other keys which are more closely related to each other. The keys through which transition is made do not need to be strongly marked, for they are of no importance except as a means of reaching the new key.

Chromatic modulation does not require common chords as does diatonic, but by again referring to the key of C it will be perceived that the triads D F A occur on the supertonic and by studying the triads of the key of G it will be found that the combination most similar is D F sharp A on the dominant of the new key. Were it desired to modulate from C to G the chord of D F A could be used and by sharping F the chord of the new key would appear. In case it were desirable to pass to a key employing more sharps or several flats, more than one member of the triad might be changed. In fact, the alteration of triads may be made in any manner. It is evident that owing to the use of the tempered scale a key in which certain degrees are sharps may be the equivalent of a key in which certain other degrees are flats, because the same chromatic tones must be used in both cases. For instance, the keys of C sharp and D flat are enharmonic equivalents and if it should be desirable to modulate from one to the other the only change necessary would be to change the original flats or sharps as the case may be to their enharmonic equivalents, sharps if they be flats or flats if they be sharps. A chord which is very serviceable in modulation is the dominant seventh, which is capable of irregular resolution. Consequently it may serve as a medium through which passage may be made from any key to any other key.

Pivot notes also afford ease in modulation. In diatonic modulation it is necessary that the original key and the new key have a common chord. However, in case the chord of the original key and the chord of the new key possess but one note common to each, and termed a pivot note, a smooth modulation may be effected.

Modulation, well developed, enchances the charm of a piece of music without limit. By its means all the beauties of every key are at the disposal of a composer, while if restricted to one key throughout a piece he would have access to but one-thirtieth of them. A composer should not change from key to key without any reason, but as in all other departments of music he must be governed by as clear logic as though he were writing a treatise. Modulation into related keys is expressive of candid and simple feelings, but when the passage is to remote keys the effect is slightly abrupt and surprising, and should occur only when this effect is desired.

At times a composer wishes to remain in one key for an unusually long period, but fearing to create an unpleasant monotony he occupies the mind with a modulation to some distinct key thus refreshing it with an entire change of thought before resuming the first key. Or he may desire to draw a strong contrast between two keys which he will alternately employ for long periods. Ordinarily modulation occurs at frequent intervals during any piece of music.

Its use is the outgrowth of development extending through many centuries. Only the church modes were used until the Sixteenth Century when Glareanus introduced his conceptions of the Greek modes, without which harmony would have been impossible. First modes, or the systematic successions of intervals between the tones of the scale, were recognized. Then the importance of the method of the distribution of notes which we call key began to be realized. However, not until the Seventeenth Century did musicians to any great extent grasp the possibilities such a method presented. Without a comprehension of single keys there could of course be no modulation, but it became very essential to understand the artistic use of accidentals in chords, which is in fact chromatic modulation. Nevertheless, there was no attempt to establish a key after it had been introduced by an accidental and the composer was very likely to decide to use another accidental in the next measure and by so doing introduce another key. He was handling the notes merely as to their individual worth to him and no heed was paid to their relations to a common tonic.

To ears trained to the perception of keys and modulation, the older composers appear to have wandered aimlessly from one closely related key to another. Nevertheless, this use of accidentals was the foundation of modulation. The acute musical sense of the composers led them to search for closely related chords until at last there appeared groups of chords which corresponds to the present day tonality. By the use of accidentals very fine effects were produced, but there remains an impression of irregularity when judged by moderns.

In the early part of the Eighteenth Century composers came into a thorough realization of what pure tonality consisted, and for some time remained content to continue in one key for long spaces using modulation sparingly. This was the period when modulation was least in evidence. It was the turning point from its unsystematic to its systematic use. When it was employed passage was made only to the most closely related keys, such as to the dominant. No design seemed to underly the use of keys, but the composers wavered back and forth, fearing to go too far from the original key. This method is very evident when compared with the bold manner in which modern composers strike out and pass from one key to another without regard to their degree of relationship if the passage may be made smoothly and gracefully. They are upheld by a perfect confidence in their ability to go where they will and to return in safety.

To say that all the composers of the Eighteenth Century were faltering in their employment of modulation is too comprehensive, for there was one who was far in advance of his time, so far that his contemporaries could not comprehend the wonderful devices which he introduced. The methods of Johann Sebastian Bach were so beyond the comprehension of the period that other musicians failed to grasp the suggestions he extended them, but continued in their puerile fashion, allowing it to remain for the composers of a hundred years later to learn from him. After Bach came others who little by little advanced to the height which he had attained and at last a definite and clear system of key distribution was worked out.

Haydn and Mozart employed simple successions of keys. They distinctly established each key which played an important part in a composition and left no doubt whatever as to their intention, following out a logical order of changes.

Modulation may be considered as the opening of a comprehensive key system of which the key systems resting upon single tonics are integral parts. When harmony was first introduced there began an irregular succession of discoveries as to chords which effectively followed one another. The variety was limited to the scope of one key, but by modulation keys may be made to follow each other in a similar manner as did chords. This is a branch of the art which every day is being developed and which promises to be even more fruitful in the future than in the past in delightful effects.

COUNTERPOINT

It is the well-founded supposition that all music was originally vocal. Probably in the very beginning one voice was allowed to sustain in succession tones of various pitches after the manner of uncivilized people at the present time. Later the one voice was doubtless joined by others which accompanied it on the same tone. In the chapter on tonality mention is made of the physiological law upon which rests the relation of a fundamental tone to its octave, its fifth, and its fourth, and this law may be considered as the more than probable reason for the introduction of the custom of voices singing simultaneously at the interval of an octave apart. The two tones are very similar and the combination entirely lacks any effect of contrast, on the other hand giving the impression of but one tone. This combination was the only one recognized by the Greeks and constitutes the first step toward polyphony, that is, music in many parts or counterpoint. The Greeks at no time entertained the idea that voices could be allowed to sing simultaneously tones which were obviously different. They did not even regard the closely related consonances of fifths and fourths which later came into great prominence and whose consonance had been established and explained by Pythagoras. The Greeks, however, allowed themselves to be hampered by arbitrary laws which made music more of a science than an art and discreetly refrained from any innovations. They do not appear to have recognized the possibility of music as a vehicle for the expression of emotions. It is true that their singers chanted long tales of love and war, tales whose beauties could not be excelled, but the music, owing to its monotonous form, in no wise tended to draw the attention. It merely consisted of a not overly melodious succession of tones, the length of each conforming to the length of the syllable which it accompanied. The idea of emphasizing the meaning of the words by setting them to appropriate music did not suggest itself and the accompaniment was in reality of secondary consideration, whereas, now it is not difficult to find instances where exquisite music has been used to accompany mediocre words.

Christianity brought with it a new impetus. Believers realized the adaptability of song for the expression of their praises, and furthermore they were exhorted in the Bible to employ it. However, the conditions were not conducive to improvement.

The advance made in the art cannot be attributed entirely to Christian spirit, but was likewise the outgrowth of abstract theory which was encouraged by the attention that the churchmen directed toward music in arranging the church ritual.

The church exerted a most striking influence over musical development. In the beginning, after the death of Christ, all the music which the converts possessed consisted of fragments borrowed from the older Greek and Hebrew music. Christ and his disciples had chanted a hymn of praise at the Last Supper and the apostles had repeatedly recommended the chanting of certain psalms, but the music was undoubtedly Hebraic, and it is from this scanty seed that the present system has grown.

Christ was closely associated with music, having even been represented as Orpheus playing upon a lyre, and it was very natural that the art was regarded as indispensable in praising God.

The simultaneous chanting of the entire congregation is said to have been superseded by antiphonal or responsive chanting about 350. A more legendary explanation of its adoption relates to St. Ignatius, who is supposed to have lived during the period from 49 to 107, and who died at Rome as a martyr after having spent his life as a disciple to the apostle, St. John. The story goes that St. Ignatius had a vision in which the heavens were opened to him and within he heard the celestial choirs praising the Holy Trinity in alternate chants. The vision so impressed him that he introduced this method of chanting into the church at Antioch. In reality, it was undoubtedly the resurrection of an Hebraic custom.

Many are the stories of the Christian martyrs who as they died continued to sing praises to their God, the indomitable spirit thus exhibited winning many converts to the faith. St. Augustine is recorded by his own confession to have been converted to Christianity by the effect of beautiful music. There are also what may be considered authentic records of the custom observed on special feast days by the early Christian followers whereby they gathered before sunrise and sang their praises, which indicates the prominent part music played in their worship.

During the Second Century the universal acceptance of the belief in the Christ brought about a realization of the necessity of a catholic church and a common service. All efforts to bring this about were futile until during the auspicious reign of Constantine (306-337). Althought not a Christian during his active life, he ever favored the church, perhaps more for political effect than from religious convictions. In a vision just before an important battle he is said to have seen a cross and to have received an intimation that with this symbol at the head of his forces victory would be gained. As a consequence he adopted it as his insignia and always retained it. He was an extremely just ruler, and shortly before his death declared his intention of becoming a Christian and was baptized. During his reign new and magnificent churches were erected and the service took on a more formal aspect to be in keeping with the more splendid edifices. Hitherto the chanting had been entirely congregational but now choirs of trained singers were instituted and although hymns by the congregation were not immediately excluded, in 367 at the Council of Laodocea, the decision was reached that only such as had been properly appointed should sing in Christian churches.

About the beginning of the Fourth Century, during the new period of church freedom under Constantine, a school for the training of church singers was founded in Rome by Pope Sylvester and soon after there ensued the introduction into the church service of hymns which were strictly original in that they were founded upon no traditions from the past. They mark the first breaking away from the mother music of the Greeks and constitute the first effort to overcome the binding theory of the Greeks. A period of production flourished until the beginning of the next century, when originality was threatened with suppression by a part of the clergy declaring against the introduction of new music into the church ritual, but fortunately their opinion was overruled.

During the Fourth Century the church passed through an exceedingly dark period, caused by the strong reaction against the belief which swept over the land. Emperor Julian the Apostate, who reigned from 361 to 363, strongly advocated a return to the pagan forms of worship and his influence threatened the pure religious music that had been the outgrowth of Christianity. When a youth, Julian was instructed in the articles of faith and practise then prevalent, with all of which he complied without hesitation. But he was of a philosophic and studious nature and later as he became familiar with the great writers of ancient Hellas the contrast between the groveling superstition with which he was surrounded and the admiration he felt for the works of Homer and other poets, the veneration for antiquity and the poetic atmosphere with which the Olympic writers stood invested, he became a believer in the theology of Homer and

Hesiod. With many another of his time he failed to find the beautiful simplicity of the Christian religion and confounded it with the intricate metaphysics and abject superstition which prevailed for a time in the church.

According to his own account he was Christian until his twentieth year, though he did not openly proclaim himself a votary of the ancient gods until he was Emperor, when he become known as Julian the Apostate. He directed the pagans to open their temples and offer victims as heretofore, and though very tolerant, even returning to their churches the Catholic prelates and clergy whom the Arian Constantius had banished, he attempted to introduce pagan ritual into the Christian Church. Of course, this meant a retarding of the development of church music. The Greek philosophy of his day was not the charming poetic creed of the early and best days of Hellas, but in it had crept tasteless, unsubstantial vagaries, mysticism and superstition had quite absorbed the purer elements. So it was well for the church that his reign was a brief one and that the wanton, degrading songs of pagan worship were not allowed to supersede the chants of the church or eventually the religion which engendered them would have lost its control over the people. As it was much that was not strictly religious in character crept into the ritual, and St. Ambrose (339-397) found ready the task of selecting such music as was worthy of the use to which it had been put and of establishing a common form of worship.

In 374 Ambrose became Bishop of Milan and at once assumed the task of defending the church against the proposed introduction of Arian worship by Empress Justina. He lived during a time of political and theological unrest, for while the barbarians pressed in upon the Roman Empire, even sacking Rome itself and threatening temporal power, the church was threatened by heresy and by schism. With undaunted courage, in the face of many opposing forces, he fought his fight and won. He brought back to the faith and to public penance the Emperor Theodosius, assuring temporal support for the church, firmly reinstated the Christian form of worship and established a standard of music which lasted for two hundred years.

There are in existence no melodies based upon the Ambrosian system, but we may quote from the Confessions of St. Augustine when he speaks of the impression made by the Ambrosian chant as he heard it in the church at Milan. He affirms that he exclaimed, "O my God! When the sweet voice of the congregation broke upon my ears how I wept over Thy hymns of praise. The sound poured into mine ears, and Thy truth entered my heart. Then glowed within me the spirit of devotion, tears poured forth and I rejoiced."

It was in truth through the influence of Ambrose that Augustine was brought back to the faith and was made Bishop of Hippo, North Africa. He had been swayed by the general incredulity of the times and had rejected the orthodox Christian teachings. Ambrose convinced him, partly through the power of music, that he had strayed from the true religion, and then from a sense of duty he threw himself into the conflict and waged war against unbelievers with voice and pen. His influence was very great, and in carrying the teachings of the Catholic religion he carried the form of worship as established by Ambrose and as a part of it the pure religious music.

The progress of music between the time of Ambrose and Gregory was retarded because of misinterpretation of the meaning of Greek treatises on musical construction. Boetius, a statesman and not a musician, had about the year 500 attempted to compile a work on the theory of music as set forth by the Greeks, but treated it simply in the light of mathematical science and not as an art. Students seem to have accepted his work, De Institutione Musica, as authoritative and blindly followed it for years, and their music consequently was formal, unreal and failed entirely in beauty from the æsthetic standpoint, and when Gregory became Pope in 590 he found the church service in a deteriorated condition.

Few pontiffs have equaled and hardly one surpassed him as administrator of the concerns of the vast Papal charge. He was a student of life and realized the necessity for advancement of culture in the church to meet the demands of society. He knew that the visible symbols of the spiritual teachings of the Roman Catholic religion, must be such as to appeal to and awaken the highest and best in man. To him the church is indebted for the complete and consistent organization of its public service and details of its ritual, and for the regulation and systematization of its sacred chants. The severely formal chants of Ambrose had not entirely satisfied the growing desire for music and there had crept into use songs which were entirely out of place. He saw that to again bring about order in the service he must gather together all the music which was in use anywhere in the church and discard any that was unseemly or worthless. This he did with untiring zeal and caused the chants which he had decided upon to be arranged and copied into a compact form and chained to the altar of St. Peter's in Rome, thus signifying that this form of worship should remain unchanged during all time.

In the chant of Ambrose the music had been largely disregarded and had greatly resembled the ancient Greek form in that it was more recited than sung. Gregory, however, abolished the more ancient style in which the value of the notes rested upon the length of the syllables which they accompanied, and the new chant consisted of a succession of melodies the value of whose notes varied but slightly. It was termed cantus planus, the literal translation, plain chant, now being used. The name referred to the even measured movement of the melody. Gregory decreed that the chant should in a large degree be sung by the appointed chorus, although the congregation assisted to a limited extent. The manner in which the church laws firmly governed it brought it the name of cantus firmus (fixed chant).

Gregory, in order to propagate his new system of song, established a school of music at Rome. The school was of imposing proportions and became very popular, its fame spreading to all lands. It is said that Gregory personally conducted classes in singing and always kept at hand a lash to be used upon negligent scholars. Singers who had been grounded in the Gregorian chant were sent to England in 604, and when, during the reign of Gregory's successor, the Pope was generally acknowledged as head of the church the system spread still more extensively. The temporal rulers of various lands sent requests to the Pope that instructors be sent to teach the approved church music to their people, among them Pepin, King of the Franks and father of Charlemagne. He was so impressed by Gregory's form of service that he remodeled the Gallic service to conform with that of the church at Rome, and in 757 sent a deputation to Emperor Constantine, requesting him to send an organ to France, which he placed in the Church of St. Corneille at Compiègne. Charlemagne also became enthusiastic and established numerous schools similar to those of Gregory; thus his music spread in France and in Germany.

Beginning with the latter part of the Ninth Century the musical historian is enabled to more closely trace the development of a system of music.

Previous to this there had been no theoretical writings concerning the subject and for our information we are largely dependent upon the history of the church, but this period ushers in one of the three learned writers, Hucbald, Guido of Arezzo, and Franco, who have given us a knowledge of the conditions of music during the Middle Ages. Hucbald was born in 840 in Flanders. Only one of his works has been preserved, De Harmonica Institutione, in which he describes under the name Symphonia the primitive form of part writing. Of this Symphonia he mentions three kinds, Diatessaron, Diapente and Diapason Symphonia, in other words, Harmony in the fourth, the fifth and the octave. So it is evident that the intervals of the fourth and fifth were at this time recognized in part singing and with the introduction of tones less closely related than were the unison of the octave, the voices which before had not enjoyed any independence, had begun to display a certain amount and music had assumed a more intricate form.

Instrumental as well as vocal music had begun to develop at this time, although the construction of the instruments was so crude that it seems impossible that they did not retard improvement rather than assist it. It is known that the organ was used in church services as early as 666 A. D., during Pope Vitalian's reign, and indications are that it was used two hundred years earlier in Spain.

The organ was undoubtedly selected as the church instrument because of the volume of sound to be obtained from it. Size, bigness, in anything creates a feeling of awe in the mind of the spectator and with it comes wonder and reverence. When man began by architecture to express the questionings of the meaning of life which confronted him he created structures which by their size alone have held the admiration and wonder of men of all ages, and always the feeling of unknown power and of mysticism comes with the wonder and makes man feel his own importance is small indeed and he humbles himself and worships.

The evolution of music was slow and the construction of the first organ was extremely crude and volume of sound for a tone seemed to be about all that was accomplished, so that in a way it was a detriment to the art of music. There was seldom a compass of more than an octave, the keys were several inches in breadth and long in proportion. They were so heavy that the performer was compelled to wear gloves and to strike the keys with his fists. He was well termed pulsator organorum (smiter of the organ). Rapid playing was out of the question, and because of the compass and the absence of the knowledge of harmony the organist for an accompaniment only played such notes as the choir sang. Gradually it was discovered that certain tones could be sounded together with a pleasant effect, and such combinations were employed at the conclusion of musical sentences. Later the singers began to imitate the simultaneous tones and it was very natural for the name of the instrument which had introduced the custom to be applied to the form of music thus developed and so rose the term organum.

The intervals which were recognized by organum, or diaphony as it was also called, were the octave, fifth and fourth. If, for instance, three voices were recognized the two accompanying voices could be either equidistant from the principal voice to the extent of either of these intervals or one could be at one accepted interval from the principal, and the other at another interval.

The method now appears unspeakably harsh, but at the time of its use the effects produced were considered as beautiful as it was possible for music to be. Hucbald based all his harmonies on these intervals and commends the system as the only proper one. He says: "If two or more persons fervently sing according to my system, the blending of the voices will be most agreeable." Although modern opinions do not coincide with Hucbald's, his words give us a most comprehensive idea of the contrast between the element in music which satisfied the æsthetic sense of six hundred years ago and that of today. Furthermore, musicians were not afforded an opportunity to display artistic sense, for the law of the church severely bound them within the limits of established rules.

Hucbald was one of the first to favor the use of organizing in the church. Ecclesiastical musicians strictly adhered to the rule which allowed only the use of the intervals of a fifth and a fourth, but in secular music there had appeared changes. The limits governing the sacred organum had been extended until the intervals of a third and a second were recognized. However, the latter system was termed profane by the churchmen and though more artistic in effect, was severely decried.

Not until another century has elapsed do we come to the second writer who has left us anything definite in regard to musical growth of this time. Guido of Arezzo, an Italian Benedictine monk who lived during the first half of the Eleventh Century, considered consecutive fifths too harsh for beauty and greatly favored the use of fourths. He was one of the first to look upon music in the light of an art rather than a science and the subsequent advance doubtless is due to him in a large degree. He has been credited with much in the way of originality in methods of teaching which cannot be justly claimed for him.

It is difficult to ascertain the truth in regard to his contributions to musical science partly because of his ambiguous language, and partly because he lived most of his life in a monastery and the world at large had little knowledge of his work. However, after his death his fame spread rapidly and almost every discovery during the next fifty years was attributed to him. To the form of part writing which Hucbald called Symphonia he gave the name of diaphonia or organum.

Pope Benedict VIII., hearing that he had invented a new method of teaching, invited him to Rome in order to question him concerning it, and later when Pope John XIX. came to the Papal throne he induced Guido to return to Rome and to bring with him an Antiphonarium written in accordance with the new system of part writing and insisted upon Guido remaining until he, Pope John, had learned to sing from it himself. So although we now know Guido could not have been the inventor of diaphonia, discant, organum nor counterpoint nor of the four lined stave, all of which was at one time credited to him, we do know that he influenced largely through his association with the Papal church the music of his time, and he is now credited with the invention of the principle upon which the construction of the stave is based and of the F and C clef but not of the stave itself.

It was the custom in chanting organum or diaphony for the voices to move in parallel directions, that is, both ascending or both descending, thereby increasing the ease with which all the musicians could keep in tune. During the Twelfth Century a change occurred and a system termed discantus began to appear most prominently in France and the Netherlands. The other extreme began to be sought and the notes of the highest part were embellished with many ornaments. The melody which it carried acquired a much more rapid movement than that of the second or lower voice which carried the cantus firmus, the foundation of the entire structure. The carrying of the cantus firmus gave the second voice the name of tenor from the Latin "tenere," to hold.

The church had established canonical laws which could not be disregarded, but secular musicians were in no wise hampered in this manner and were free to express their sometimes turbulent spirits in their songs. So it is to them we turn for a study of the artistic growth of music.

Folk-music had been constantly improving. There were legends, stories of war, ballads and serenades whose music had been arranged with no thought of science but only with regard to the dictates of the people. Secular instrumental music had also advanced and served as a means for increasing the progress of vocal effort. The instruments, such as the lute and the flute, had no connection with the church but were far superior to the heavy organ in attaining special effects. The portability and general character of these instruments brought them into general use and this insured for them improvements suggested to the performers as they handled them. On the other hand the organ was not generally understood, and helpful improvements rested entirely with the makers.

The knowledge of music was very largely transmitted orally because of the crude and laborious method of notation. This was a very precarious manner in which to preserve notes and as a consequence the words of many secular songs of a period between the Sixth and Fourteenth Centuries are extant, but the music has been lost. The oldest specimens of such music which are worthy of being considered authentic are those contained in the Lockheimer song-book, a collection of Volkslieder which dates from a period not later than the Fifteenth Century. The preceding unrecorded period is great, but an estimate of the length of time consumed by the development, of which these melodies are the culmination, may be reached by their comparison with the original cantus planus.

The propagation of these songs is romantic and interesting. They were carried from place to place by the hordes of strolling musicians who traversed the country in the north and in the south. To gain success it was necessary that they be proficient in many things and extremely versatile. They were compelled to sing and play many selections, a task which was not made easier by the fact that there were no musical scores to which they might refer. They must understand how to play upon various instruments which they carried with them. They must be able to compose verses which would suit any occasion or subject, and they must be competent leaders in any merry-making. They either traveled alone, in small groups, of whom one was often the master and the others his assistants, or in companies containing women and children who took part in the performances as singers or dancers. These strolling people traveled from castle to castle and from town to town, governed by no law, either social or civil, and acquired the wild and questionable customs bred by such a life. Nevertheless, they accomplished much in assisting the progress of music. They carried that of one country into another, so establishing a general knowledge of the art. They continually composed and, as a matter of course, discovered new beauties and the credit of nearly all the artistic development belongs to them.

Although they had at first been outcasts from the church and had been severely frowned upon, through their assistance in the production of the sacred plays they established themselves in the good graces of the church. During the first part of the Twelfth Century these Easter or Passion Plays or Mysteries as they were variously termed were conducted by the clergy alone and were given solely in the Latin tongue. As a consequence they were to a large degree meaningless to the mass of the people. In the latter part of the Twelfth Century and during the Thirteenth the language of the people superseded the Latin, and others beside the clergy were capable of assisting in the performance. This offered an opening for the minstrels and they were allowed to take parts, their versatility making them proficient in the art of portraying the characters in the plays. Their great native wit and the fact that for so long they had been cut off from all influence which society or the church might have exerted over them did not imbue them with any too much reverence and they began to introduce humorous allusions which, although they detracted from the original religious purpose of the plays, greatly enhanced their interest for the people.

Not only did the lowly strollers make a profession of music but gentlemen of the courts adopted it. The Troubadours in the south and the Minnesingers in Germany and the Minstrels in England who were nobles and knights claiming to sing and compose for art's sake alone, employed the strolling musicians as accompanists and assistants who did anything which their masters did not care to do, or imposed upon them. To increase their means these assistants became instructors in the art, giving lessons at the places which they visited, thus engaging in an untold degree in disseminating a knowledge of it. They were often more gifted than their masters and in performing the music composed by the latter often infused touches which made it much more the music of the people and gave it qualities which appealed to them. The popular element thus gained was largely instrumental in leading the masses to adopt the art and thus perpetuate it.

The nobles disdained to demand pay for their services as entertainers, considering it beneath their station and a practise only worthy of their lowly assistants. However, they were nothing loath to accept gifts from the princes and ladies before whom they performed. They clung to their noble traditions and gave to the music a refinement and dignity which would have been entirely lacking had their assistants, the jongleurs, absorbed it as a profession.

Three forces were at work in the development of the art. The severe, unprogressive system of the church, the refinement and delicacy of the Troubadours and Minnesingers, and the uncouth, wild, yet at times beautiful music of the people. They were three forces equally necessary for its perfect development. Without either an essential quality would have been lost. The church preserved its pure, dignified music, but the secular songs were carried from country to country, receiving new touches as they traveled until they assumed an intricate and many-sided beauty.

The Crusaders had a very marked influence upon music. The returning Crusaders brought new musical knowledge from the East. The surge of religious enthusiasm which prompted these movements added a refining effect as did the improved morality of the times, and secular music assumed a greater artistic perfection. Thus it is seen that the folksong gave birth to artistic music, but during the Middle Ages church music assumed the character of an art whose progress continued freely and uninterruptedly. It may be noticed that this was a period of increased activity in all the arts. Painting acquired a more developed form at the same time that polyphony came into existence. The world had reached the point where the preparation of centuries merged into a sudden and astonishing development. The nations of western Europe had become civilized and had gradually acquired the arts of civilization, for culture is always last to come into evidence in the progress of a people.

Paris is to be regarded as the seat of great musical learning during the period from the Twelfth Century to the middle of the Fifteenth. Here was the foundation of the first purely national school of music and was followed by numerous others, the Netherlands, the Neapolitan, the German, and the English. About this time there appeared among the active musicians, that is, those who composed and taught and wrote treatises on theoretical music, men who were not of the church; and with them was ushered in a more interesting period in musical history.

As discant and organum advanced toward perfection it became necessary to regulate the length of notes employed and thus arose a new form of music called measured chant. Franco of Cologne, a most noteworthy theorist of the early Thirteenth Century, was the earliest known writer on this subject. In his treatise, Ars Cantus Mensurabilis, he mentions four kinds of notes, the double long or large, the long, the breve and semibreve. Of the large, long, breve and semibreve there were two kinds, the perfect so named by Franco in honor of the Ever Blessed Trinity, and the imperfect. Every perfect note was equal to three notes of the next lesser denomination; every imperfect to but two. From this arrangement sprang the rhythmic forms called perfect and imperfect time. Perfect time corresponds with our modern triple time, while the imperfect answers to the common or duple or quadruple time of modern music.

The other chapters of his work dealt with ligatures and rests and Franco succeeded in instituting his system of measurement, the observance of which occupied musicians for a comparatively short time. It was by no means an aid in the production of beauty, but rules which were complicated in the extreme are found in all treatises of the time. It bears no relation to the advance of counterpoint, but to a large extent occupies the attention of the musical historians during the first half of the Thirteenth Century.

The term discantus had been used to designate the ornamental variation of the main subject of the song; it was really a counterpoint above the plain-song, but until the middle of the Thirteenth Century the term contrapunctus had not appeared. The characters used in the notation of music had in the early stages of musical history been called points and the new name which supplanted that of discant was derived from the expression punctus contra punctum (point against point), and signified two parts progressing by means of notes of equal value. The note of one part sounded simultaneously with the corresponding note of the other part, the effect of one being set against the effect of the other.

About this time there appeared a reaction against the Franconian system of measurement. Several new musical theorists came into existence and effected a complete revolution. An ars nova (new art) sprang up in contradistinction to the ars antiqua (antique art) of Franco. Innovations had been recognized in regard to the measured discant which did not add to its development but rather covered it with a cloak of intricacies which completely hid its really good qualities. Musicians had been striving after perfection, but in their experiments had been led through devious paths which only led them farther away from their desire. Consequently a radical change was necessary to bring about an advance.

The writers of measured discant had employed methods which were difficult and unusual in the extreme. Instead of composing an original cantus firmus and upper part or discant, they had grown into the custom of combining already existing songs, using one for the cantus firmus and one or more others for the upper parts. The songs so adopted were generally written in totally dissimilar but strongly marked rhythms, and the only common characteristic was the triple measure in which practically all music was then written.

One of the first changes to be introduced which was significant of the reaction was the return to use of duple measure which had gradually ceased to be employed, triple measure being favored because of its fancied relation to the Holy Trinity. However, the one measure became unpleasantly monotonous and thus brought about a revival of duple time. Another important innovation was the introduction of signs representing tones of smaller time value than had been in use previously. The semibreve, equal to our whole note, had been the smallest, but this was divided into two smaller notes which were given the name of minim. In turn the crotchet was introduced, two of which were equal to one minim. The smaller notes made possible more accelerated movement of the parts and one part might contain many more notes than the others, in some instances four, six, seven and even nine semibreves were set against one breve, the notes of other values being used in a similar manner. This accommodated the combination of songs of different lengths which would not have been possible with the old custom of employing notes of equal length and but one syllable to a note.

Jean de Muris of Normandy who lived during the first seventy years of the Fourteenth Century was not only a composer of especial note but also a superior philosopher, mathematical and musical theorist, has by his historical and theoretical writing given a clear and valuable insight into the conditions existing during his time. He has called attention to several instances in which the composers have attempted tasks of extreme difficulty in combining songs of very dissimilar lengths. In one the cantus firmus consisted of eighteen breves, the discantus accompanied nine syllables of text and a third voice just above the discantus was furnished with thirty-eight syllables of text, the melody allowing thirty-two semibreves for eleven of the syllables. The manipulation necessary to write the two melodies and to successfully allot the syllables to the notes resembles the solving of a problem in mathematics rather than the expression of an art. Through this method of procedure the most absurd and inappropriate variations appeared. De Muris in a moment of vexation addresses his contemporaries thus: "You throw tones by chance like boys throwing stones, scarcely one in a hundred hitting the mark, and instead of giving pleasure you cause anger and ill-humor. Oh, what gross barbarism!" John Cotton pointedly compared them to revelers who, "reaching home safely, cannot tell how or by what way they came."

The changes here recorded led to one extremely important departure. Complete ornate settings of various portions of the Ordinary of the Mass were composed for the first time. The Antiphonal and the Gradual had been treated in this manner, but the Ordinary appears to have retained its original form of organum until this period at the close of the Thirteenth Century, when the music of the church had entered a new era, one which led to the introduction of forms that were frivolous in the extreme. The older ideals had been put aside and new ones were being raised. Composers were accustoming themselves to radical changes in notation, rhythm, measure and methods of writing and were preparing for a period in musical history which deals with one of the greatest advances in theory and practice that any one period comprises. The changes which had been occurring in France, where musical activity seemed to center around Paris, were noted with apparent interest by the Italians who now assumed an important part in the development. The return of imperfect measure to actual use appealed to them strongly and in the specimens of music from the two schools during the earliest Fourteenth Century the tendency of the Italians toward the newer duple measure is evident while the French exhibit an inclination to cling to the older triple measure. The Italian composers early mastered the effective use of rhythms, and syncopation. They were able to create music which was free of movement and pleasant to hear. Their use of syncopation was more sparing than the French who employed this method to such an extent that combined with their laborious and monotonous rhythms it caused their music to assume an irregular appearance. Frequent changes of rhythm are indeed acceptable to the ear, but nothing is gained by too often removing the accent from the first to some other beat of a measure.

The Italians were instrumental in developing a very important device, the canon. The French had employed it, but without the success which attended the efforts of the newer school.

In Italy canon was written in only two parts, as were nearly all compositions. Three parts were not usual and four parts were indeed rare. The knowledge of canon was universal, however, and both the French and English wrote in four parts during the first of the Fourteenth Century. In canon one voice led out in a melody and each successive voice was given the same melody, beginning at some point after the preceding voice and retaining the same relation throughout the composition. All of the parts were not always written, but the melody for the first voice would be notated in full and a cross would be used to indicate the point where the second voice was to take it up. It was during this period that canon received its name. The term first referred to the rules governing its performance but gradually came to mean the device itself.

About this time there were five species of intervals which were recognized as consonant by musicians. They were three which were perfect — the octave, the fifth and the unison; and two which were imperfect — the major sixth and the third, the most natural progressions were considered to be from perfect to imperfect intervals and vice versa.

The music of the church had been affected to an extreme degree by the changes which had been introduced in composing. The strict plain-song of Gregory had lost favor in comparison with the freer style in which the various voices were furnished with equally characteristic movements. This drawing away from the church's traditions very naturally was extremely unsatisfactory to the ecclesiastics. The newer method of composition had at first only been employed for secular music, but eventually music of this style had come into use at gatherings held on the feast days of the church and gradually it found a place in the church service. The introduction had been so very gradual that the officials of the church did not fully realize what was occurring and with open eyes allowed the entrance of much which was entirely opposite to the simple and flowing organum in which the voices remained the same interval apart throughout a composition. Furthermore, the choristers were allowed to improvise their parts, and although the music in the books of service remained the same in appearance when sung the effect was totally different from that designed by the composer. The practise of extempore discant allowed all manner of unusual variations to be introduced. The character of the music to a large degree depended upon the mood of the singer. If he were happy his music would contain more ornaments and he would sing with more spirit than if he were depressed. The practise also required a musical knowledge greater than many of the choristers possessed and those who were not properly qualified were likely to introduce dissonances where they should not be and to exaggerate in every possible manner. Writers began to express their disfavor of the methods employed in the service and in time the attention of the authorities was drawn to the abuses which were being perpetrated. One writer likened the chants to the songs of Sirens and declared that music defiled the service of religion. Another became so sarcastic as to remark a striking resemblance between the facial contortions of the choristers and the agonies of a dying man. Jean de Muris, who has been quoted before, declared that the uneducated singers performed "their leaps and other vocal antics at inopportune moments. They bark and bay in the manner of dogs, and like lunatics delight in disorderly and aimless hurryings to and fro."

With the more extensive use of notes of smaller value music in general had assumed an effect of greater rapidity. This quality was regarded as entirely unsuited for sacred music and was considered wanton in the extreme. Another reason for the introduction of inappropriate music into the service may be found in the admittance of laymen into the choir. Gregory had decreed that none but those duly appointed should be allowed to sing in the church and as long as this rule was adhered to abuses were not liable to occur, for the position was retained throughout a lifetime and the singers were always under the surveillance of the church.

The church officials attempted to bring about a change for the better by means of remonstrances and admonitions, but their efforts proved futile. The composers and the choristers ignored their requests and it required drastic measures to accomplish their object. Therefore, in the year 1322, Pope John XXII. issued an edict in which he forbade the use of discant, even of the most elementary kind, in the church services. The edict was strictly to the point and it required that never again should the music of the church be depraved with discants, nor that the counterpoint be stuffed in its upper voices with secular songs. He described the new music as intoxicating to the ear and demanded that in case any one was found guilty of singing in discant during any church service the culprit be suspended from office for eight days. Occasionally, as on feast days or in the solemn celebration of the mass, it would be correct to forego the strict plain-song and observe such consonant intervals as the eighth, fifth and fourth, which the Pope acknowledged as heightening the beauty of melody. Voices might sing at these intervals above the plain chant, but never in such a way as to divert the attention from the cantus firmus itself.

It is also interesting to note that at this time the church authorities with great freedom expressed their disapproval of the Ionian mode which corresponds with the modern major mode and whose use tended to the production of music bearing a more striking resemblance to our present ideal. In fact, they stigmatized this mode as lascivious together with the freer counterpoint and the use of the intervals of thirds and sixths, all of which practises in the course of five centuries became absolute necessities to the writing of music which would meet with approval.

The desires of the Pope were strictly heeded and the florid discant was silenced in the church. The effects of the edict did not entirely disappear during the Fourteenth Century. However, the forbidden fruit had been tasted and it was in no wise an easy matter to eradicate the desire for freer music. Gradually there grew into use a method by which it was possible to obey Pope John's edict in the letter if not in the spirit. The device originated in France and was termed faux bourdon or false tenor. It was designed to be sung by three voices, and when written consisted of a strict organum in two parts a fifth apart with an additional voice half-way between, making thirds with the others. According to the Pope's edict the third voice should have doubled one of the other voices in its octave or else sung in unison with one of them and its position as a third to each was irregular in the extreme. However, the singers complicated matters in their interpretation of the notes. Of the three singers to whom the parts were allotted, two carried the upper two parts as written, but a third to whom was left the lowest part, the cantus firmus or tenor, possessed the highest voice of the three and instead of reading the notes as written he would sing them transposed to an octave above. Consequently the singing voices did not follow the prescribed parallel fifths, but the organum was composed of sixths and thirds. The effect was flowing and much more artistic than that produced by the strict organum, and, although this was the very element which the church authorities had been desirous of exterminating, their musical knowledge was so meager that they did not realize that the singers were juggling with the written notes in such a manner as to completely do away with the required interval of a fifth and to disregard most audaciously the canons of the church.

Nevertheless, the faux bourdon adapted itself to chanting with exceeding grace and in time openly assumed the name which signified the falsity of its rendering and became instituted as proper music for use in the services. The device is still used in the church, under the name of falsobordone, in the polyphonic method of chanting the psalms and responses. The greatest composers have used it in obtaining certain effects. For example, progressive thirds and sixths are employed by Mozart in the priests' chorus in his Magic Flute and by Beethoven in his grand Mass in C.

The English adopted the method giving it the name of fa-burden, thus anglicizing the French name. They absorbed it to a much greater degree than had the French originators and their music of the period displays its influence.

A common English method was discant supra librum and is of enough interest to warrant our attention. Three voices were typical of this form, the tenor, the contratenor and the supranus. The singers, whose number varied, gathered before a book containing the required cantus firmus and the tenor sounded the first note of the plain-song. The contratenor replied with the tone a fifth above and the supranus with the octave. By this means each established his distance from the plain-song. The tenor led with the plain-song and beat the time while the contratenor accompanied him, note against note, with perfect concords, almost entirely in contrary motion, however, and keeping within his range, which was from a fourth above to a fifth below his initial note. The supranus was supposed to watch the plain-song but was not required to accompany it note for note. On the other hand, he was allowed all freedom to bring in such notes as he desired, the only requirement being that each measure begin and end with the note which he would have sung had not he been following the rules of the ancient plain organum. The supranus must also see to it that all the principal notes of each measure were concordant with the tenor. This style of extempore music is hard to appreciate at this age. Any number of singers were allowed in each of the parts, and although they might thoroughly understand the rules which they were to follow, it is hardly possible that each one would attempt exactly the same notes throughout the ornamental supranus and the effect must surely have been curious when such was the case.

Thomas Morely, who is said to have been intimately connected with Shakespeare in literary work, in 1597 said that it caused him to marvel "how men acquainted with music can delight to hear such confusion as of force must be amongst so many singing extempore." And indeed such is the case.

An account of discant supra librum given by Simon Tunstide, in his treatise as measurable music, at the close of the Fourteenth Century, points to a very perceptible influence exerted upon it by faux bourdon. Theorists had previously thought it necessary for the supranus, or voice carrying the ornamental variation, to introduce concordant tones, but

Tunstide insisted upon the use of imperfect intervals, such as thirds and sixths, and advised the supranus to avoid as far as possible all perfect concords. By this time more than three voices were allowed in the discant and it is probable that two of them were allotted the duty of introducing ornamental parts while the other voices carried the strict organum. Therefore, it would have been extremely easy for the two freely moving voices to observe only intervals of thirds and sixths with the cantus firmus in accordance with the faux bourdon. However, all in all, this method of extempore singing was indeed dangerous, for it was practically impossible to avoid some of the things which were deemed as strictly contrary to good counterpoint, such as consecutive perfect intervals. For a chorus to sing successfully their work must be mapped out for them by the composer and the members of each group of voices must sing in unison, so that they may produce the desired effect with the other groups. That every member of some groups could freely extemporize without regard for his associates is almost beyond comprehension and their united efforts must have resulted in a hodge-podge of sound overwhelming to Twentieth Century ears.

The various innovations which have been remarked were steadily increasing the limits of good counterpoint. The original intervals of an octave, a fifth and a fourth no longer occupied the minds of musicians but thirds and sixths had claimed consideration. Thirds had attained such prominence that a device called gymel had appeared, although it never attained any great importance. This was a method of writing for two parts so that they remained an interval of a third apart. Variety was obtained by allowing the parts to cross each other by which means the upper voice would temporarily assume a position below the lower, although retaining the relation of a third. Gymel was doubtless an abbreviated form of faux bourdon, with the highest or third part omitted. Its effect was rather meager as compared with its parent, and it became the ambition of composers to remedy the defect. This they did, not by returning to the older faux bourdon of conservative thirds and sixths above the cantus firmus or tenor, but by introducing something entirely new by adding a contratenor bassus, descending below the tenor in fifths and thirds. Thus at the end of the Fourteenth Century musicians had created a firm foundation upon which to build their art. They had invented a system of polyphony which recognized a variety of intervals. They had broken away from the canons of the church with such assurance of purpose that the severing was permanent and the pursuance of the art of music for art's sake alone had become such an established fact that it refused to ever again be governed by rules established by those who were without musical knowledge.

Gregory had done untold things for music when in the Seventh Century he established schools for the training of choristers, but the active value of these schools in regard to music in general had worn out by the beginning of the Fifteenth Century. The world's progress demanded new methods, and the institution of chapels or organizations of musicians as necessary adjuncts to the principal courts of Europe had the necessary effect. These institutions formed a part of the household to which they belonged, be it king's, prince's, or of the lesser nobility. The members were subservient only to their employers and it was their duty to please in the highest degree either with composition or with interpretation of music. Secular music received a wonderful impetus. Not only was the position of singer in a chapel royal one of honor but there were liberal compensations appertaining to it. On the other hand the choristers were generally underpaid and were under strict church rules, in many instances being required to be ecclesiastics. Naturally the strong comparison between the old and the new institutions of music caused the most energetic and gifted musicians to seek admittance into the chapels, and here they competed with one another to produce original and artistic compositions. Special knowledge or inclinations were necessary to obtain admittance and great effort toward perfection was required to insure a permanent position.

The age of extempore composition was past and the rules which had governed that rather haphazard method were transferred to the more serious composition, which was notated throughout. Successive faux bourdon which had previously been so very popular found little favor under the new conditions. It was more the outgrowth of a childish beginning than a proper implement with which to advance an art. At first the church modes were strictly adhered to, thereby greatly limiting the range of available notes, and, although during the first part of the Fifteenth Century, there was a remarkable advance in the beauty and flow of melody, the composers had not yet rid themselves of all the confining and arbitrary rules which instead of assisting in writing graceful music retarded all progress and led composers into aimless discords so that by combining the melodies their good qualities were sadly weakened.

During the first half of the Fifteenth Century England possessed a contrapuntist who served greatly in advancing the art. This was John of Dunstable, who died in 1453. He gave life and vigor to the science of counterpoint and possessed enough genius to sever the bonds of arbitrary discords and similar unnatural and unnecessary features. Dunstable's music may be judged by several compositions, sacred or secular, which are extant. However, only a comparatively few of Dunstable's compositions have as yet been deciphered and scored. The obscurity of his notation and the many personal characteristics which he allowed to creep into it allowed the world only a meager knowledge of him for some time. His music excelled in beauty and in sweetness and purity of sound, but at no time did it possess any decided adaptability to the sentiment of the words which it accompanied. He understood the art of following an effective plan and of using contrivances which enabled him to introduce variety and yet bring his musical plan to a desirable completion. This was a most acceptable innovation as compared with the hitherto aimless proceedings of composers. Dunstable's good qualities were reflected in the compositions of his contemporaries and followers so that there grew up a style of counterpoint in which the older plain-song was displaced by a system of different metres occurring simultaneously by which the otherwise monotonous and inexpressive material was presented more effectively and canon was introduced, although it figured more extensively in the lighter music. Dunstable was not entirely alone in inaugurating the methods which he did, but both in France and the Netherlands there existed contemporaneously those who displayed equally advanced ideas, thus indicating that the time had indeed come for advancement and that the power to progress was allotted to typical composers of distinct countries.

Dunstable is dear to the heart of the English historian of music. He raised himself from an obscure boy, distinctly of the people, to a man for whom the country mourned not only as a composer but as a good, true man. He received false honor at the hands of Lustig, a Dutch historian, who discovered in him a saint, although it is certain that Lustig must have confused the musician with St. Dustin, an English ecclesiast living during the Tenth Century.

Despite the strides which Dunstable made in the realization of artistic propriety and improved construction there clung tenaciously to musical minds the idea of arbitrary discords without any consideration as to their value in increasing the beauty of the composition or in introducing and making more acceptable certain concords. So firm a hold did it have that even as late as the Sixteenth Century there existed composers who were not rid of it.

With the passing of Dunstable and a few less worthy successors, the musical glory of England declined and attention is directed to France and to the Low Countries. About 1435 a perceptible change in the methods of composition made its first appearance. The old harshness became less noticeable and fulness and impressiveness of tone grew to be a usual quality of music.

Among the French composers a name which stands for progress and worthy achievement is that of Guillaume Dufay, who lived from 1400 to 1474. When twenty-eight years of age he became a member of the Pope's choir, an organization which included the majority of the notable composers of the time. It was there that the musicians of France and of the Low Countries mingled with the musicians of the School of Venice and were enabled to learn from each other the new ideals which were so soon to show themselves. While Dufay remained in the Papal choir his compositions possess few characteristics which denote the powers of the writer. It was not until after his appointment as Canon of Cambrai that his special style developed. He was not only able to compose flowing melodies but combined them in such a way as to accentuate their best qualities and to erect a beautiful whole. He devoted his best efforts to the Mass and differed from his English contemporaries in making extensive use of canon in this connection. He also developed canon and employed it freely and even brought it into the prominence of the leading device. He was cunning in combining this with the unequal measures, as for instance, introducing a theme in the two upper voices according to the perfect measure and later repeating it in the tenor according to imperfect measure. He was equally successful in employing the originally simple faux bourdon and ornamented counterpoint. However, even Dufay fell short in choosing a definite purpose as a framework for his compositions and the music, flowing and sweet though it was, did not grasp the mind and insistently express some thought.

Following Dufay came a transitional school of musicians in whose hands canon and imitation received effective treatment. Although the ancient writers called the device then in use canon it hardly conforms with the present idea of what the term means. Now it requires that one or more voices should repeat entirely the progression of the first voice, one after another. The older device would now more properly be termed imitation, for to modern conceptions it was nothing more than prolonged imitation. Musicians had treated imitation very ineffectively. Only casually did they seize upon opportunities of repeating in one voice a progression which had previously appeared in another. The theme with its imitation would appear only two or three times during the composition and then be abandoned. Often several themes were treated in this manner. There now appeared in the last of the Fifteenth Century a growing realization of the possible beauties which could be derived from methodical treatment of imitation.

Imitation and canon are devices belonging strictly to counterpoint and, during this period when the musical minds were entirely occupied with that branch of music, it seems that musicians at last grasped their true value. Imitation was not limited to two voices as before, but appeared in every part. Formerly the voices had taken up the theme to be repeated only in the unison or at the interval of an octave, but now the fifth began to be considered a proper interval to be used. As the Fifteenth Century was ending composition improved noticeably. The gropings of musicians were being rewarded, and they were approaching the highest development of counterpoint. Their efforts to find a proper outlet for their musical ideas had furnished them with various methods and devices, some of them worthless in aiding progress but valuable in having served as a foundation upon which to expend efforts which in truth led to valuable discoveries.

Dufay was considered the most prominent composer of his time and well fills the position of leader of what is known as the Gallo-Belgic School. After his death, Johannes Okeghem, a native of East Flanders, succeeded to the leadership and from this dates the beginnings of the Netherlands School. Okeghem was between forty and fifty years of age at this time and had spent much of his life in the chapel of the King of France, to the head of which he had attained. It is rather surprising that a man who had lived for so long in a foreign country and who held the state position which he did should have exerted such a remarkable influence upon the musicians of his mother country. However, without a doubt, many of them were his associates in the chapel and their attention was drawn to him because of the bond of brotherhood.

Okeghem, great as he was, possessed a somewhat academic style and his music was encumbered with many inartistic superfluities. He continued the development of canonic imitation as it descended to him from Dufay and made frequent use of the device of simultaneously introducing metres of various proportions. It may be said that he attained the highest point of subtle ingenuity in handling the canon. He brought the mechanical contrivances then in the possession of musicians to a condition which may be deemed classical and the fundamental conception which he had of canon has remained unchanged as a monument of his ability. The inartistic touches which he unfortunately added were readily dropped by his successors and it may even be asserted that Johann Sebastian Bach, whose name stands for perfection in counterpoint, merely employed Okeghem's style of canon. Furthermore, his shortcomings as to artistic development are more than overshadowed by his achievements in other respects. His successors and imitators advanced the one step which he had failed, they discovered that music was a most proper vehicle for the expression of emotions and very easily overcame the scientific bent of their master.

It is indeed of interest to note that Glareanus, renowned for his work in regard to the modes, was a contemporary of Okeghem, and that it is to his writings that we are indebted for a more complete knowledge of the composer.

Among the many devices whose use Okeghem mastered were augmentation and diminution. By means of diminution in canon the passage repeated was written in notes of smaller value than those in which it appeared originally and consequently moved at a more rapid pace. Since the repetition began only a few measures after the original, and because of its greater agility, it gained upon its leader and soon they would sound the same note simultaneously and further repetition would be impossible. Augmentation was the opposite of diminution and by its use the notes of the repetition were of greater time value than were those of the original and the tendency of the first part was to so far outdistance the voices in which the imitation occurred as to take away all the effect of the device, the hearer having time to forget the original before the imitation occurred. The written notes were not changed to indicate the change in value but the lengthening or shortening was indicated by the words crescit or decrescit in duplo, triplo, or whatever the composer desired.

Another device was one termed inversion canon. In this the intervals of the original appeared inverted in the repetition so that a passage which had been ascending became descending. A retrograde form of canon was also popular. In this the cantus firmus was repeated interval for interval, but instead of the repetition beginning with the initial note of the cantus firmus it began with the last note and was sung backward. The composer who could employ the largest number of these devices and numerous less important ones in a single composition was considered most praiseworthy. Okeghem was extremely cunning in this respect, but he also was capable of creating new devices.

It is more than easy to understand how these purely mechanical devices were capable of occupying the minds of musicians to the exclusion of real beauties, but for all this Okeghem's compositions show the work of a master. The melodies, in spite of the rules which they observe, are flowing and sweet and his music is without that awkwardness which mars the work of many of his contemporaries. The forms of canon which have been mentioned have proved themselves worthy of the importance with which they were viewed by their originators in that they remained in use to be raised to a higher plane by Bach. There were, however, other forms which soon assumed the character of musical curiosities. One demanded the repetition of the cantus firmus beginning with the second note of the melody and ending with what had been the initial note. In another all the rests contained in the cantus firmus were omitted. And in still another all the shortest notes of the cantus firmus were ignored in the repetition.

During Okeghem's time music did not escape the spirit of mystery which permeated the Middle Ages; canons were written in a manner which has since won for them the name of riddle canons. The various parts were not written out, but the entire composition consisted of a formula containing only a few notes superscribed with a Latin phrase whose interpretation was limited to the initiated few and which indicated the manner in which the other parts were to imitate; that is the point where the imitation began and the special device was to be observed. Thus a composition of considerable size could be notated in an ordinary line of music. Generally the riddle canon was marked "Plures ex una" (many from one), meaning that from the one written part several were to be evolved. These seemingly unnecessary mannerisms of the Fifteenth Century composers were but the usual worthless material that always comes into use in the development of any movement.

After Okeghem and his special work in relation to the canon the name which is looked upon as pre-eminent is that of Josquin Depres, or Desprès. He was the most gifted of Okeghem's pupils and the one in whose music the touches of the master are most apparent. Depres was born in Conde, Hennegau, about 1450 and died at his native place in 1521. His contemporaries termed him the "Prince of Music" and he was greatly honored among them. His acknowledged genius is somewhat shown in the manner in which Germany, France and Italy for years contended for the honor of being his birthplace. Depres took a most comprehensive course of instruction in order to fit himself for the position of singer in the Papal chapel at Rome. It was during this course that he studied under Okeghem. In Rome, Depres displayed his superior qualities and the people became most enthusiastic over his learning and genius. Later he became the head of the royal chapel of Louis XII. of France. The king at one time desired that a popular French melody be arranged in such a way that he should have a special part. Depres was indeed confronted with a task, for the king had almost no musical knowledge and an extremely feeble voice. However, the composer was equal to the occasion and arranged the chanson for two boys' voices, adding a special part consisting of a single note running throughout the piece. This he reserved for the king and sang the bass and principal part himself.

Depres devoted himself largely to arranging settings for the Ordinary of the Mass. This was a subject which was deemed very fitting for use in displaying skill in the use of the various devices. Nevertheless, there is a very perceptible strain of real beauty running throughout his music. It attempted to express somewhat the same sentiment as did the words it accompanied.

While the Netherlands, the French, the Germans and the several other schools of composers on the Continent were contenting themselves with creating and working out difficult problems involving the use of intricate canonic repetitions, in England there was forming a reactionary school. The attention of the English musicians reverted to the older plain form of counterpoint and they felt convinced that this with perhaps an occasional use of imitation as adornment could supply the necessary and proper interest of a composition.

However, the activity that draws the attention of the historian to England received a setback at a very early period. The breaking away from the church at Rome created a necessity for an entire change in church music. Composers were required to handle new subject material and they were confronted with the unpleasant realization that all the work which they had previously done was worthless for the new church forms.

Tye and Tallis were perhaps the most noteworthy members of the English School. Tye was the elder by nearly ten years, having been born about 1500. Both were members of the royal chapel, Tallis ending his life in the service of Queen Elizabeth in 1585. He was very strict in his use of plain counterpoint without simultaneous notes of various values or of imitations. He displayed his skill in this direction in his setting of the new Litany of the English church in 1544, done according to explicit directions that absolutely plain treatment be observed. Tye did not observe as strict rules in his counterpoint as did Tallis, but the sternness was relieved by its dissolution toward the close of every composition into running notes and various ornamental effects. Tallis has left a most striking monument of his abilities in a motet in forty parts. It consists of eight individual trebles, eight mezzosopranos, eight contratenors, eight tenors and eight basses. Each of the forty parts was treated carefully and displays individual characteristics, and the whole structure fulfils all the demands of good counterpoint.

The attention of the church at Rome as well as that of the English church was again being turned to the quality of music in use in the service. The meaning of the words had become almost extinct because of the running notes and overlapping repetitions of phrases. The service was made up of intricate music and the sentiments it was supposed to express had entirely disappeared. Some passages were so rapid that it was impossible for the singers to properly enunciate the distinct syllables and in others the words were dragged out to such an extent that all sense was lost during the pauses. However, the attention of the church bore fruit in many examples of plainer compositions which now appeared. The psalms received an entirely new treatment, one collection bearing the inscription, "The Psalmes of David in English Meter, with Notes of four parts set unto them by Gulielmo Damon, for John Bull, to the use of the godly Christians fore recreating themselves instede of fond and unseemly ballades."

In 1520 at the town of Mons in Holland, there was born Orlandus Lassus in whose hands the work of the Netherlands School assumed a higher importance than that attained by the English School. Lassus was admitted as chorister in the Church of St. Nicholas in Mons when he had only reached the age of eight, at which early time he began a serious study of his art. He is known also by the name of Roland Delattre and the incident which brought about this change of name had a great influence upon his life. His father had been apprehended in counterfeiting money and was made to walk three times around the public scaffold with the spurious money made into a collar worn about his neck. The young son was so mortified that he immediately changed his name from Delattre to Lassus, and it was this unpleasant occurrence which later influenced him to go to Italy when sixteen. Lassus has received unstinted praise for his ecclesiastical compositions. They are impressive and exhibit the breadth of the composer's musical powers. The melodies of which his counterpoint is made up were handled so as to produce beauty and artistic perfection and he was equally capable of regarding them from the harmonic standpoint. Formerly composers either could only view their polyphonic compositions from the melodic standpoint or only from the harmonic, but Lassus combined the qualities of both. He was very prolific and his versatility was extreme. He received many honors during his life and was an intimate of King Charles IX. while staying in Paris. The story is told that the king was seized with severe remorse after the massacre of St. Bartholomew's eve and in a feverish effort to overcome his emotion directed Lassus to write music for the Penitential Psalms.

The composer who realized all the promises of the period was Palestrina, born at about the same time as Lassus. His talent was even more unusual and he served as a model for his associates and successors. His superior taste and judgment made it possible for him to use to the very best purpose the materials which he found ready for him. Although he did little or no creation of devices, Palestrina had a wide knowledge of music and that of his countrymen did not suffice him. From the specimens which he studied he was in no way loath to gather suggestions which are to be found utilized in his best efforts.

Palestrina favored the old plain counterpoint and the parallel movement of all the parts. He derived variety by changing the value of the notes and by introducing short intervals of contrary movement. His melodies were especially expressive and he discovered a more pleasing approach toward a close and a more successful close itself. Heretofore closes had been very awkward affairs.

We have learned in the preceding chapter how the artistic purity of Palestrina was instrumental in saving church music from extinction, a fate with which it was threatened because of the non-religious form it had assumed. Palestrina discovered the secret of writing music which was both simple and pure as to construction and expressive of religious thought. In the days of Ambrose and Gregory and later in the Fourteenth Century, at the time of the edict of Pope John XXII., when the church held matters in its own hands and surrounded its music with iron-clad rules, it was prompted more by a conviction that the church should have absolute sway over everything connected with it than by any knowledge of the artistic fitness of that which it enforced. Palestrina, however, established a standard which has since been observed by composers of church music not only because the church approved of it but because it perfectly fulfilled all requirements by being strictly religious.

Bach stands at the head of contrapuntists. No one has since appeared who can supersede him and consequently the history of contrapuntal development ends with him. He made few if any innovations, but employed the material which he found already in use with an artistic touch.

Bach was a poor boy who in his youth encountered many of the proverbial hardships all geniuses must overcome. Not only was he without sufficient means to easily supply a thorough education but he was to some extent dependent upon the assistance of an elder brother, Johann Christopher, who developed an unpleasant jealousy of the more gifted

Johann Sebastian. Both brothers were musical, and although both were especially proficient in organ playing the story goes that Johann Christopher had in his possession a collection of organ compositions by the masters which he himself had copied. Prompted by his jealousy he refused to allow the younger brother to copy them. However, Johann Sebastian, nothing daunted, surreptitiously secured them, and, it is said, copied them by moonlight.

Bach was of the sixth generation of a family whose musical instincts had first found expression in the zither playing of the original Bach. Johann Sebastian was the culmination, and succeeding him the glory of the family declined. He not only exhibited unusual musical capacities but advanced rapidly in his classical studies. In music he never evinced any need of an instructor to supplement the elementary teachings of his brother, Johann Christopher. His powers of concentration were marked in the extreme and he often worked all through the night in order to satisfy himself in some line of knowledge.

The first position of any great importance which he held allowed him the munificent remuneration of fifty-seven dollars per year, but although he was one of the artists of the time and had only reached the indiscreet age of eighteen, this so amply provided for his wants that after only a few years he was able to afford an extended journey and monetary assistance to an indigent cousin.

Bach's artistic ability was truly peculiar to himself. He delighted in allowing himself to be entirely influenced by the spirit of the words which he was accompanying and to attempt to carry out the particular sensations produced. He was capable of especially beautiful effects when reproducing ideas of visions, and a choral, " From Heaven came the angel host," is typical of his skill. The cantus firmus moves on uninterruptedly in a simple style adaptable to congregational singing, but the accompanying parts are so artistically interwoven, one ascending and another descending, that the impression of the angels coming down to the shepherds on the first Christmas morning and then soaring upward again, is clear to the hearer.

One of the keys which unlocked Bach's genius so that he accomplished a freer style was his careful study of Italian music. The broadening influence which this exerted imparted to his work a clearness of purpose and a delicate finish which the heavier German School had never accomplished. Bach's vocal compositions which were designed for choir work were almost totally ignored during his lifetime and remained forgotten for some time after his death. Their unusual character and their difficulty of performance must be considered as the reason for this neglect, but in 1829, over seventy-five years after the composer's death, the production of his " St. Matthew Passion " marked the beginning of the world's realization of their excellence.

He had at last discovered what his predecessors had been vainly groping for and he opened an era of " new music " as it is called. The first work of composers in this field was not particularly noteworthy, for they were not entirely accustomed to the new conditions. They were as navigators in a new sea and it was necessary for them to get their bearings. They were enthusiastic with an enthusiasm which knew no rebuffs due to unjust criticism of their work because it did not conform to established conceptions of right and wrong. They did not realize, but they were creating new methods and forms which in time were to become the standard by which future compositions would be judged. Harmony began to occupy their attention and the Seventeenth Century was devoted almost entirely to the development of this branch of the art.

With the beginning of the Eighteenth Century came the opening of the era of Johann Sebastian Bach. His effect upon polyphonic music was great in the extreme. He left it changed in every particular from the condition in which he found it. The new music which came into life during this period was of a much freer character. Contrapuntists previous to him were prone to regard their music only as to the progressions of its melodies, that is, they regarded it from the horizontal point of view. Bach and his successors regarded it both from the horizontal or melodic and the vertical or harmonic standpoint. Counterpoint had become more intricate. Not only must the melodies flow purely and gracefully, but the simultaneous tones of the several melodies must be subservient to the rules of harmony as well.

The growth of counterpoint has proved itself to have been very slow, but the point has now been reached when it is possible to consider it as it is now studied and written.

Counterpoint is the art of adding to one melody which serves as a foundation for other melodies above or below it in such a manner that when they are sounded simultaneously correct harmony shall be produced. In writing harmony the composer must deal with the construction of chords and their relations to one another, and although the melody of each part is considered to a slight degree when determining the manner in which the progressions from chord to chord be made, it is subordinate in importance to the harmonic construction of the chords. On the other hand, although harmonic purity is absolutely necessary it is by no means sufficient. Each part of melody must progress independent of the others and must possess distinctive features of its own.

We find counterpoint treated under two general heads, simple and double. The melody which is to constitute the foundation of the counterpoint is termed the subject. If one other melody is added to the subject in such a manner that it can be used only in its original position, above or below, it is called a simple counterpoint. If instead it is constructed so that the two parts or melodies can be inverted with regard to one another it is called double counterpoint, the word double having the meaning invertible. The inversion may be at any interval, the most common being that of the octave and the next those of the tenth and twelfth. In double counterpoint the interval of a fifth requires special treatment, for upon inversion it becomes a fourth, an interval which is forbidden in counterpoint unless approached and left by a step. The reason for double counterpoint appears rather obscure to the uninitiated, but its need will be explained in the treatment of fugue in the next chapter.

Triple counterpoint is that in which three melodies are written in such a way as to be capable of inversion between themselves, that is, that each one can be either the highest, the middle, or the lowest part of the harmony. When four melodies are treated in this manner we have quadruple counterpoint. These are much rarer varieties than are single or double. Counterpoint may be written in any number of parts from two up to twelve or more, and may be of any of five species according to the number and arrangement of the notes of the accompanying melody or melodies as compared with those of the given subject.

The first species requires note against note, that is, one note of the accompanying melodies is caused to sound with a note of similar value in the subject or principal melody.

In the second species each note of the subject must be accompanied by two notes of equal value in each of the other melodies.

In the third species each note of the subject must be accompanied by more than two notes of equal value in each of the other melodies.

The fourth species consists of each note of the subject accompanied by two or more notes of equal length with syncopations. This means that the note occurring on an unaccented beat of a measure is tied over to the accented beat of the next measure.

In the first four species the accompanying notes of each measure must be equal, but in the fifth species, or florid counterpoint as it is sometimes called, the subject may be accompanied by notes of various lengths.

There are various ornamental devices which are strictly contrapuntal and which have been noticed historically. Canon may be differentiated as strict and free. When strict the first part is exactly repeated in the succeeding parts, each repetition beginning not later than two measures after the one preceding. When the canon is free it is termed imitation, and only the beginning of a musical idea need be repeated except when the part possesses some especially noticeable progression in the melody, which should be at least approximately repeated or imitated in the other voices. Even though the exact progression is not repeated the other parts should produce an effect similar to that of the first part. The parts in which the repetition occurs may be at any interval from the first part; hence, it is evident that only the progression can be repeated and not necessarily the notes.

Perfectly plain counterpoint recommends itself as most worthy and most useful for the purpose of study. A knowledge of the peculiarities of strict counterpoint or that which is entirely subservient to more or less stringent rules is necessary that a proper structure may be built upon which to place the ornamental devices. The modern laxity allowed in free counterpoint or that in which the artistic sense of the composer is allowed full play would indeed scandalize the ancient writers, but nevertheless, underneath all its embellishments good counterpoint observes many arbitrary rules.

Counterpoint is difficult to write, requiring a more thorough musical education than does harmony and the student of the theory of music grapples with this subject when well advanced in his course, although some theorists advise the study of harmony and counterpoint at the same time. In itself there is little that will appeal to the seeker after general information, but in its growth there is much that is romantic and even humorous, and the great interests of the ages have affected counterpoint or have been affected by it.

FUGUE

Fugue is in a sense the culmination of all the contrapuntal art of centuries, and holds a most important place among musical forms, whether considered historically or from the standpoint only of a finished product of art.

For this reason, and because of the difficulty of understanding it presents to the many, a larger space is allotted to the treatment of fugue and fugal devices than to any other one form of music. However, it is not our purpose to delve so deeply into its intricacies as to make this chapter a text for the young composer, nor to make of our readers judges or critics. What we do desire is to present the subject in such a way that they may gain a larger measure of appreciation. The masterworks of really great creative minds hold much for each of us, and it is only the intelligent listener who can appropriate and enjoy his share of such a composition as fugue.

Theoretically, fugue is not difficult of comprehension, but fugue as heard presents the greatest of difficulty except to those gifted, by nature or education, with the power of holding the essentials in mind throughout the course of the composition. Without previous study, the listener as a rule fails to grasp the plan of construction, and often feels the music to be rather fragmentary or disjointed and even lacking in melody. Fugue is a contrapuntal composition, so we know its chief characteristic is that of melody. It is the highest example of polyphonic music, and as an understanding of the two general classes of forms, polyphonic and monophonic, will make clear the later development of this work we will again explain them briefly.

The terms themselves convey their use in a general sense, polyphonic, many voiced; monophonic, single voiced. Polyphonic music is a combining of two or more parts of equal melodic individuality. The monophonic system, whose simplest form is the song, makes its repetitions within the limits of a single voiced melody having an accompaniment which is ancillary to it. This accompaniment is that commonly found in the song and consists of a succession of chords in figuration or otherwise. In the polyphonic form, through repetition, the parts support one another and hence no other accompaniment is necessary.

With an understanding of the nature of the polyphonic style we are prepared to look for an interweaving of melodies carried by several parts, and subject to rules of musical composition. The same melody in a contrapuntal composition is not necessarily repeated by the different parts, two or more melodies may be heard at once. When, however, the same melody is repeated by the various parts we have a canonic form of which the fugue is the highest development. In the canon the laws for the entry of the parts are rigidly laid down. If, for instance, the second part follows the first after a lapse of one measure the third part conforms and enters exactly one measure after the second. They must also preserve the first difference of intervals; if the second part takes up the melody a fifth above the first it must follow out the melody in that interval. Another of the points of construction in which the fugue differs from a canon is in the matter of imitation. In canon the principal part is imitated by all the other parts throughout the composition; in a fugue, while the subject is imitated, and often one or more of the accompanying counterpoints to the various imitations of the subject are themselves imitated, the continuous and exact repetition of one part by another throughout the whole work is rarely found.

As we proceed with the study of fugue we shall find certain features in common with the canon but worked out only to a brief extent.

In as few paragraphs as possible we will now try to give a conception of the meaning of fugue as applied to musical composition, with a general idea of its construction.

Fugue is a French word derived from the Latin, fugare, to put to flight, and that from the Greek, fugere, meaning to flee. The significance of the title becomes clear to us as we follow the construction of a fugal composition.

It is a flight of melodies, one part entering, a second taking up the theme, another and another following until all have entered. Through the skilful handling of the subject by the composer you hold in mind the central theme. You feel all through this chase of melody, with its many seeming divergencies, that the wholeness of the composition is becoming stronger by the devices used, and you are finally prepared for the climax.

Any voice part may begin a fugue and the other parts follow or pursue one another at certain distances; they are subject to the rules of imitation and are dependent for their treatment upon the character of the subject or principal theme.

The subject is a definite theme, consisting generally of a short melody given in the principal key by the part beginning the composition. Throughout the fugue the subject is reproduced by each of the two, three, four or more parts. After the subject is announced the second voice repeats it, usually a fifth above or a fourth below, and this constitutes the answer.

While the second part is giving the answer the original part or subject proceeds with a counterpoint which becomes the counter-subject, as does every successive part upon the completion of the fugue theme. The third part follows with the subject again in the principal key but an octave higher or lower than the first part. The announcement of the subject, answer and counter-subject, or the entry of all the parts is called the exposition of the fugue and the first section or development is said to be completed. After the exposition, which may be very short, comes the development of all the musical possibilities in the way of melodic ideas, free imitation and double counterpoint according to the ingenuity of the composer, in order to give variety and still preserve the unity of the fugue.

One method of varying the work is in the use of episodes. An episode consists generally of a number of measures, in form like a part previously heard, and is usually developed from parts of the subject or counter-subject. It is often of modulatory style, thus preventing the weariness which the incessant repetition of the principal theme might otherwise cause. No rigid rules place any limit upon the construction of these episodes and in them the composer shows his art and individuality. One episode may follow another, and even the use of short episodes may be employed between the different parts of the fugue as well as between the developed sections, so there is every opportunity in a fugal work for original employment of the several musical devices and for the making of an otherwise pedantic composition into one of beauty, that it may take its place as a truly artistic creation.

Following the episode or episodes we have the entry of another exposition. The subject and answer are again brought forward but follow a different order from that of the first section; the part which gave the subject now takes up the answer, the subject being given to the part which before gave the answer and the counter-subject of course is formed as before explained. All the parts are continued and in some the original counterpoint appears either simply or inverted, the subject and answer forming the predominating idea throughout the whole fugue. This exposition is again followed by an episode. The greater the number of parts the greater will be the number of expositions and episodes.

An analysis of a short two-voice fugue (No. 10 in the Well-tempered Clavichord), may make the fugal structure clearer. In measures 1-4 we have the exposition of subject and answer beginning in the tonic minor; in measures 5-10 an episode; in 11-14, a second statement of subject and answer, this time in the relative major; in 15-16, another episode; from 20 to the end, the third and more extended statement, this time in the minor again, broken by various episodes.

Finally comes the unifying of parts, the bringing together of the original themes for the grand climax. This is accomplished by a stretto, a hurrying together of the subject and answer by means of a shortened distance between them. Usually at least one stretto is found and there may be several strettos in the course of a fugue. This interruption or overlapping of parts heightens the interest and the listener feels the work has gradually increased in power through the successive flights and he is now ready for the point of greatest interest, the culmination, or climax. The way is cleared for the close. Often a coda is added and to strengthen the tonality at the very finish we find the employment of a pedal or double pedal point. A cadence either perfect or plagal completes the fugue.

The name and fame of Johann Sebastian Bach are so closely associated with the form of composition we are now considering, that it is impossible to write of one without the other. That Bach was the greatest of all contrapuntal composers, we read in the preceding chapter, and we shall soon see that to him fugue owes its present perfection. However, no art reaches such a climax without showing traces of all that came before as well as foreshadowing all that is to be. We have followed the development of this great art from the earliest crude beginnings, from simplest rhythmic motion through the stages of growth of melody, tonality and harmony. We have seen how the ever-increasing knowledge of the basic principles, through the application of the various devices, has brought polyphonic composition to the point where a genius was needed to give to us, not a new but a perfected form, capable of appealing to the highest intellect. Bach was that genius; but we shall now trace a little more minutely than has been done the history of composition as it bears directly upon the development of fugue.

For a thorough understanding of each step in the development one must look to the growth of polyphonic forms in the interval between the year 1100 and the death of Bach in 1750, since which time nothing has been added to the laws of fugue. Of all instrumental musical forms at present in use fugue ranks as the oldest, though vocal fugues must yield the right of seniority to the chant, which at least in its Gregorian guise is much the older.

It was from the canon that the fugue as we now know it grew. During the Sixteenth Century we find the use of the term fuga for the form we today call canon, which in truth is merely a contrasted form of " fuga per canonem," a fugue according to rule.

To Guillaume Dufay, a Belgian of the Fourteenth Century, is usually given the credit for the invention of the canon.

The canon as it was then written was the strictest kind of musical composition, the counterpoint being very formal and severe, and as has been pointed out, for some time it seemed the aim of the old contrapuntists to produce works as incomprehensible as possible. There is a lack of beauty in the canons of the early composers that makes them fail of aim as works of art; but they do evince great labor and study of the technical side of composition, and we can understand what place they fulfilled in the development of instrumental music. It was in fact by the correct ordering of intervals and through the experiments in the matter of combinations of melodies that the relations of tones were made known, and upon which knowledge more modern composers built their works.

Under Joannes Okeghem, a pupil of Dufay's, imitative counterpoint reached its zenith. He may be considered the master of the new or second Netherlands School, and as a teacher occupies an unique place in the history of music. He must be regarded as the founder of all schools from his own to the present time, for it was through his pupils that the art was transplanted into all countries.

It was by Josquin Depres, or Després as he is sometimes known, that the new Netherlands art was carried to Italy. He had received instruction and inspiration from the great Okeghem, whose successor he became in the school he represented. Between the years 1471 and 1484, he was at the Papal court of Sixtus IV., and was then called the most brilliant musician, the greatest composer, the modern world had yet produced. Prince of Music was the title given him by his contemporaries and for a period of sixty years he could claim this title undisputed. Then came a period with new tastes and styles and his works were not understood. Depres' masses are still jealously preserved in the Sistine chapel.

Depres was the first of the contrapuntists according to Luther to become master of notes instead of being mastered by them, as had been his predecessors and as were many of his contemporaries. He realized that mere technique is not art and that "music," quoting his own words, "has a speech and a capacity for the expression of the pain and pleasure of the human heart."

Depres had earlier served as chapelmaster to Louis XII. of France, and when first admitted to this service had been promised a benefice. The promise, however, was forgotten and Depres, being inconvenienced by the shortness of the king's memory, took the liberty of reminding him of his promise in the following manner: When commanded to compose a motet for the royal chapel, he chose part of the 119th Psalm for his subject: "Oh! think upon thy servant as concerning thy word!" This he set in so exquisite and supplicating a manner that the king took the words to heart and soon bestowed the promised preferment. For this act of generosity Depres with equal felicity, composed, as a hymn of gratitude, another part of the same psalm: "O Lord thou has dealt graciously with thy servant."

Again when royal procrastination made an appeal necessary, Depres applied to a friend at court to use his influence in his behalf. The friend was willing, but never seemed to find a favorable opportunity, though Depres urged him frequently. Being annoyed by Depres' persistency he finally replied "I shall take care of this business, let me alone."

At length Depres, tired of this vain, fruitless pledge, took the oft-repeated words of his friend, "laissez moi faire" (lais-se-fai-re-moi) which by a slight facetious alteration became the syllables to the scale, la, sol, fa, re, mi, and set them to music. The result was so admirable as to prove that he did not depend upon words for his musical inspiration. We do not know that he accomplished his purpose but we do know the composition ranks among his finest.

That Depres had learned all Okeghem could teach him before he went to Rome was apparent from his early compositions, and from a study of the works of Lassus and Palestrina we may conclude he was their immediate predecessor, so the place he fills in the growth of polyphonic music is indeed an important one.

Like Bach he lived in a period when the way had been made for a master. Dufay had already carried the learning of the Netherlands School to Rome where masses with counterpoint had been written. In truth, in 1380, Dufay had held the same position in the Papal church that Depres held one hundred years later. Though Dufay's work was simple it was of sufficient contrapuntal importance to be quoted as authoritative by theorists of much later date. Between Dufay and Okeghem there were practically no composers to be classed with Depres. Their genius was expended on the invention of counterpoint rather than its application as a means to a higher end. Dufay had opened the way, the many technical composers had shown the possibilities of counterpoint, Okeghem had put the stamp of his art upon it and inspired his pupils to seek for something higher than mere mechanical skill, and Depres used the knowledge stored by them and wove the devices into really artistic compositions. He deserves to be classed among the greatest musical geniuses of any period.

We read in the previous chapter how the Netherlands School brought contrapuntal technics to a high state of development. Willaert introduced antiphonal writing and some of his grand sacred works were for two choruses of four parts each, one chorus answering the other.

In the history of musical development in Venice we find during the middle of the Sixteenth Century the names of Giovanni and Andrea Gabrieli. They realized that the organ had a larger function than that of occasionally aiding the voices and through their experiments with independent performances mastered the secrets of medieval counterpoint, and of its special applications as devised by the school of Venice. To Willaert's chorus Gabrieli added a third choir and employed alternate choir singing with the massing of voices and combinations of all parts in a freer and grander manner. In truth Giovanni Gabrieli ranks among the foremost of the founders of modern instrumental art.

Frescobaldi, a contemporary and fellow countryman of Gabrieli's, and organist of St. Peter's, evolved the canzona, which was the direct forerunner of the fugue. The name was taken from a particular variety of lyric poetry in Italian style, and applied to instrumental compositions which were written in more or less strict imitation, and to vocal works in which the words of such a poem were set to music for one or more voices. It sprang from the folk-song and corresponded with the German Lied. Because it held possibilities for freer work than the stricter polyphonic music of its time, and because of its appeal to the emotions, the canzona was for a time a popular style of composition. In the vocal canzonas the stanzas usually consisted of short lines and in order that the music should answer to the rhyme positions the melodies were sharply defined and the developed periods short.

In the Venetian School then we find the beginnings of our present form of fugue, but to the Netherlands School it owes its further development. In the history of musical growth the name of Orlandus Lassus rather overshadows that of his lesser contemporary, Jan Pieters Sweelinck, born in Amsterdam in 1562; but in the record of the development of the form which now holds our attention Sweelinck's work will doubtless always keep for him a place in the mind of the student.

We can find no authoritative record concerning his early education though tradition has it that he was a pupil of Zarlino and of Gabrieli in Venice. This probably is only tradition, for dates do not verify such a statement; it was his close study of their works rather than their instruction which so influenced his own. He was organist at Amsterdam, but his fame as organist and as a founder of a school of organ music spread throughout the musical world of his time and his influence was felt especially through Germany.

A contemporary wrote of him. "When he played the organ there was a wonderful concourse every day; every one was proud to have known, seen, heard the man." Vondel, the Dutch poet, called him the Phœnix of Music and enthusiasts have even made the claim for Sweelinck that he was the founder of instrumental music, but though his organ compositions hardly bear out this claim they are of historical interest. He was the first one known to compose an organ piece in which a real part was intrusted to the pedal, and it is true to him is generally given the glory of having written the first completely developed organ fugue.

While most of his published works were entirely vocal it is on his manuscript collection of organ works of sacred music that his fame rests. We know he was hailed as a genius during his life, the musical world and especially the students of polyphonic composition recognized the fact that he had brought nearer the perfection of a style of music for which so many had striven. He stood peer among composers of fugue not only during his life but until we come to Bach.

His pupils carried his methods and his learning from one musical center to another and in the generation which succeeded him nearly all of the leading organists were either his pupils or were influenced by a study of his works.

Scheidemann was a pupil of Sweelinck's and handed down the learning of his master to the great Reinken or Reinicke, who was one of the chief representatives of the art of organ playing in northern Germany. Bach often went from Lüneburg to Hamburg to hear Reinicke's organ performances. After exhaustive analysis of the works of these composers it is believed that the fugue of Sweelinck was in no really lasting way further developed until it found its consummation in Bach.

Another of Sweelinck's pupils was Samuel Scheidt, a German, who was the first to treat the working out of the choral artistically and in true organ style; he has also left us some very excellent toccatas. The toccata derives its name from the Italian word toccare, meaning to touch, and so signifies a touch piece. It is really a composition intended to exhibit the touch and execution of the performer and in this is much like the prelude or fantasia. Prætorius, in 1620, in fact defines the toccata as a free prelude or introduction, and this was doubtless the original meaning. The oldest examples are found in the works of Gabrieli and Merulo, and in them the toccata begins with some full harmonies, but gradually running passage work is more and more introduced and interspersed with small passages of imitation. Occasionally but one part is found throughout; this is not a decided subject which is made such by repetition, and the feeling is more of a showy improvisation than of a carefully planned composition. One of its characteristics lies in the flowing movement of notes of equal length and like character.

There was a lack of individuality about the toccata that kept it from taking its place as a definite form, but Bach raised it beyond all previous writers and a number of his fugues are preceded by toccatas in which he has employed short movements of markedly different styles.

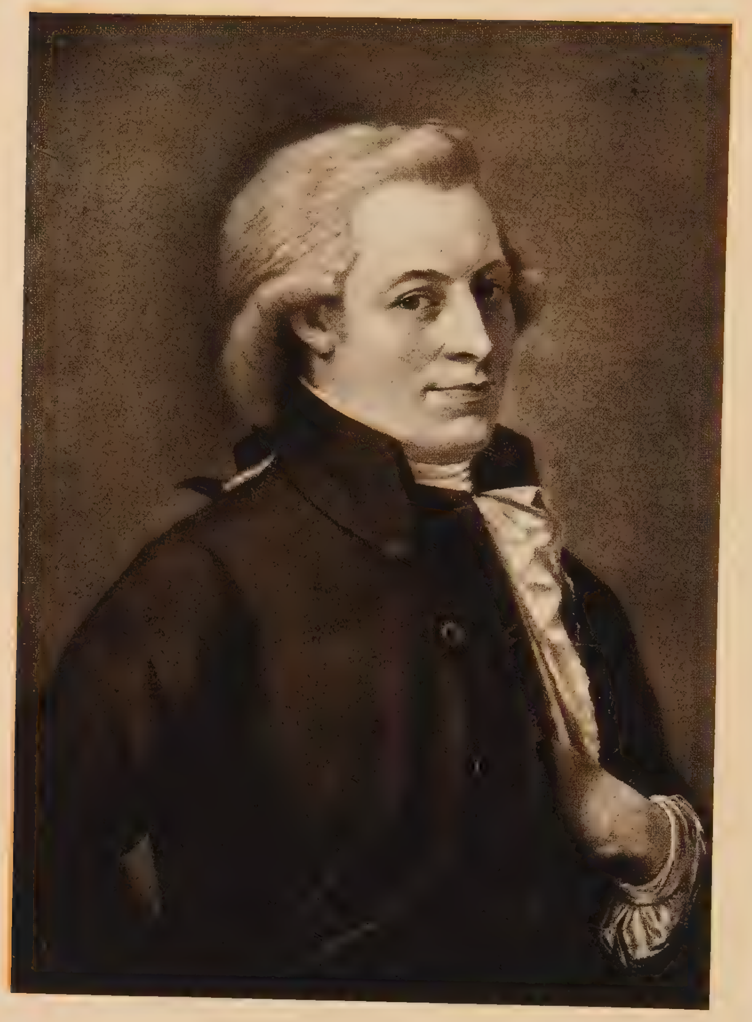
Coming now to the time of Bach we find the toccatas, chaconnes and chorales of Johann Pachelbel approaching very closely those of the great master, and in his son's (Wilhelm Hieronymus Pachelbel) fugue for clavier another stride toward the perfected form.

In each biography of Johann Sebastian Bach we read of his pilgrimage on foot from Arnstadt to Lübeck, a distance of fifty miles, to hear Buxtehude, and of how he forgot to return at the end of the leave of absence granted him. Dietrich Buxtehude was a native of Denmark, celebrated as an organist and today remembered for the inspiration and insight he gave to Bach. In 1673 Buxtehude established in Lübeck the Abendmusiken, a series of grand sacred concerts following the afternoon services of the five Sundays before Christmas. His excellent organ compositions for these concerts and his splendid performance of them won him fame abroad and attracted the attention and admiration of students of contrapuntal composition.

The strength of his work lay chiefly in his free organ compositions. These were not founded on chorals as had been most of those of his predecessors, but were remarkable as the earliest assertion of the principle of pure instrumental music which was later so fully developed by Bach. His famous Abendmusiken, for 1678-1687, is included in the two volumes of his organ works edited by Spitta.

At Weimar Bach met Kuhnau, who had acquired celebrity for his compositions of fugue and double fugue, and doubtless the success with which these works had met and a study of them influenced Bach, who was great enough an artist to glean from the experience of others all that was best and to avoid the mistakes they had made.

Johann Josef Fux, 1660-1741, made his fame by his Latin treatise, Gradus ad Parnassum. It is a work embodying all the rules for the treatment of the ancient modes and in general of the whole subject of counterpoint. Its value as a practical explanation and manual of composition lasted many years and today equals any in its own special line. It



WOLFGANG AMADEUS MOZART. 1756-1791

Born at Salzburg, Austria. Mozart's life was one of struggle and disappointment, for thorough appreciation did not come until after his death. He was very industrious and in the short time that he lived wrote many compositions, among them fifteen masses, four litanies and other sacred vocal compositions. His greatest mass, the "Requiem," was left unfinished at his death. Of his operas, "Figaro," "Don Giovanni" and "The Magic Flute" are the most important.

At his death he was buried in a pauper's grave, the location of which is unknown.

appeared in 1725 and was translated into German in 1742. In it polyphonic composition was placed on its present basis, though in a very simple form. Bach took it as set forth in this book, applied to it the new key system of tempered scale and unlimited possibilities of modulation, and gave us the highest development of this form of music.

We see how the way was made for the masters, Bach and Händel, for it must not be forgotten that Händel's vocal fugues are among the greatest in existence.

Händel's oratorios are in their style as unapproached today as they were during his own time. He seems to have brought the oratorio to a state of perfection, but he has failed to exert the influence over the modern composers as Bach has done. He founded no school as did his great contemporary, but as a vocal and above all a choral writer he stands supreme. His early instruction in composition under Zachau, organist of the cathedral at Halle, was in the form of canon, counterpoint and fugue, and we find fugue used in some of his grandest conceptions, including his greatest and most universally known oratorio, the Messiah. Händel borrowed many of his fugal themes for his choruses from other masters but made them his own, as he further developed them. Bach, however, invented a great majority of his subjects. His fertility in this line seemed inexhaustible. He was a thinker and an idealist, traced ideas to their source and worshiped abstract truth for its own sake. Quite as complete are his works as Händel's, but far more complex, so he never won the popular applause that Händel enjoyed. Händel's fugues show breadth of understanding and are rich in their flow of melody and picturesqueness.

In the development of fugue and of instrumental music the organ is of particular importance. Organ music reached a high plane of development sooner than any other branch of instrumental music, doubtless because organists found so many opportunities for experiment in solo work in church services. For this reason we have considered the organists and composers of organ pieces in this chapter. It was through their imitation of choral works that the elastic form known as fugue came into existence.

We find in the choral movements, where one voice enters after another at different pitches, the real source of the method of construction of fugue. When the same process was adopted for instrumental music the principal theme became more definite than in the choral, and composers began to weave together the parts so that this theme became the text of the entire work. Further experiment showed them the advantage gained by varying the pitch of the principal theme and then by associating it with contrasting, subordinate phrases. Next came the processes of modulation, and the parts were presented as it were in new garb and more and more intricate it became. Every device was applied that could elaborate, extend and explain the central theme, and then the whole movement was rounded with completeness by bringing the course of the progressions back to the original key and recapitulating the first phrases prominently. The fully developed fugue exemplifies the law of greater unity in greater variety.

There is such large opportunity for artificial work, for curious variations of parts and for display of ingenuity that many composers have failed to get beyond the mechanism of fugue. They have found the opportunities for trying their skill so inviting that they seem to have forgotten that the technical side of a composition means nothing except as it is a means of expressing something higher. Fortunately, however, the almost unlimited capabilities of fugal work attracted many of the greatest composers and, as we have noted, fugal passages were adapted for toccatas, movements of sonatas and choruses even before the fully developed fugue came into existence.

The form became sufficiently distinctive for theorists to analyze, and they attempted to devise a set of rules for its composition. As we stated in the beginning of the chapter, theoretically, fugue is easy to comprehend, but the truth is that scarcely one of the finest fugues is strictly in accordance with the directions of the writers on this subject. More than almost any other form of music does fugue appeal to the intellect of both composer and audience and these theorists found, as they thought, a form which could be regulated by numberless rules. They tried to evolve an artistic scheme by mere speculation until it seemed as though fugue was invented to enable pedants to exhibit their ingenuity. They failed to consider the existing facts of art in their effort to reduce at least one form to scientific treatment. Fortunately for the world of art the great masters saved the fugue with all its wonderful possibilities from a mere dead formality.

> Music resembles poetry: in each
> Are nameless graces, which no method teach
> And which a master's hand alone can reach.

Rules and methods there were without number, but it remained for Bach to make them subservient to the soul of art. He saw the larger possibilities of a freer handling of the laws of composition in polyphonic style, and his mastery of technique added to his wonderful and apparently unbounded imagination for melody and harmony won for him the title of "Father of Modern Music," and gave to the world a very definite musical form in fugue.

Pedantic had been justly applied to the earlier works in this form, but Bach gave to it beauty and expressiveness. The Venetian masters had endeavored by contrast of chord passages with scale passages, contrast of dignity and majesty with brilliancy, to bring out the power and variety of the instrument. Bach succeeded in producing variety while developing logically a definite subject and working gradually up to a climax. He emphasized the character of the musical mood. His harmonies, modulations, entry and re-entries of the imitative passages are not only wonderful in point of technical skill but they support and explain the principal theme. To put all in a few words, Bach was the possessor of an intellect which was capable of understanding the great law of unity, and of the ability to read it into his art.

There is perhaps no one man who has left so deep a mark in the history of music as Johann Sebastian Bach. His influence upon the subsequent development of the art has been far-reaching and in this Bach's work differs widely from Händel's, whose influence in comparison was slight and confined mostly to England. For a number of years after Bach's death he was studied but little by great composers, his works being for the most part unpublished and hard to obtain, but since the time of Beethoven there are few notable musicians who have not made his compositions objects of serious study. In them is found the germ of almost everything great that has been done in music since his day.

It was in the freer polyphonic forms and especially the fugue that Bach's technical mastery displays itself most convincingly. Fugue represents as a musical form the most highly organized development of the general principles which underlie all of Bach's compositions, and it was in the fugue that they found their highest expression. For these reasons fugue is considered characteristic of his style, and a study of his fugues more than any other of his compositions gives us an insight into the nature of the man and as artist and musician.

His collection of preludes and fugues known in England as the Forty-eight Pianoforte Fugues, and in Germany as Das wohltemperirte Clavier, has enriched the musical world for all time. The two volumes of this work contain fugues which belong to various periods of Bach's life and illustrate such states of feeling and of mind as can be expressed in musical language. They are then not only of technical interest, but whether sad, pathetic, reposeful, merry, confident or serene, are in pure instrumental style and of the most perfect and finished art.

These preludes and fugues have for the greater part of a century been under the most exacting criticisms of numberless musicians, and stood the test so well that the better men know them the more they turn to them for knowledge and inspiration.

Bach was not in his time nor is he today classed as a popular composer. He reverenced his art, was true to the highest creative powers of man and expressed in the choicest and rarest manner his innermost emotions. He did not try to appeal to the masses but voiced his own feelings to the satisfaction of his own refined taste and keenly critical musical sensibilities.

His works make great demand upon the performer. To give an intelligent interpretation of his more difficult works and to create in the minds of the audience their underlying spiritual meaning requires unlimited technical resources and artistic ability. This is one explanation of why Bach seemed for some time an isolated figure while Handel's popularity and reputation went hand in hand.

Modern fugues are more constrained and formal than those of Bach and Handel. They lack the freedom of genius in their working out and are not as convincing and forceful. Bach seemed to think polyphonically, it was his natural language and so he created with the greatest of freedom. He rendered musical material so pliable that it could be molded by the composers who followed, and it is true they have given us some very masterful fugal compositions. His son was perhaps the sincerest composer of the generation after Bach, he used his father's artistic manner in working up the details but rather catered to the taste of the time and included empty and conventional formulas which made his work somewhat superficial. However, Bach's influence upon the great Austrian school of composers who came a generation or two after him was directly through this son, Philipp Emanuel. Only a few works were at that time obtainable, The Art of Fugue, the Forty-eight Preludes and Fugues and a few organ works were fairly well known and carefully studied, but until Mendelssohn's day his works were not in the possession of the musical world at large. Haydn, Mozart and Beethoven were, it is true, strongly influenced by Bach's work. Beethoven's work especially shows traces of this influence. He had a larger opportunity to study Bach's compositions than his contemporaries and was in truth the first great composer to delve deep enough into the meaning of the master's works to be able to draw from them something of greater import than their technical side. While in some of Bach's greatest works we find religious feeling so nobly expressed, in Beethoven's compositions there is pure human joy and sorrow which appeals to us with the language of passion.

Near the end of his life he wrote a few complete fugues, but often he had used fugal passages to introduce his earlier works and his contrapuntal effects are happy ones. Among those best known are his great quartet fugue for strings, the fugue in the finale of the Eroica Symphony, the finales to the third Rasoumowsky Quartet, the Cello Sonata, and the enormous movement in B flat, which originally formed the termination to the great string quartet. In Beethoven we honor the greatest instrumental composer since Bach.

In one of Mozart's fugues with a fantasia as a prelude we find the Bach style and in fact in all of his best piano fugues. He had laid the foundation for his polyphonic writing by the study of Fux's Gradus Parnassum and by his early practise in technique, then he was led to Bach whose works in Leipsic were a new-found treasure. It is, of course, Mozart's sonatas upon which his fame chiefly rests, but in his other forms he shows mastery of technique and creative genius and his fugues are of value and interest.

In Italy Cherubini had acquired the old Italian and the Netherlands contrapuntal style and gained that proficiency in polyphonic writing in which scarcely any composer since his time has equaled him. He thoroughly mastered the style of Palestrina and adapted it perfectly to his own ideas. His Credo for eight voices is a remarkable instance of his thorough mastery of counterpoint and his fugues though rather dry and formal are of great technical interest.

These three composers were all born within twenty years after the death of Bach, and closely following them came Mendelssohn, to whom we must give the glory of having revived the real Bach. He first edited some of Bach's organ works that had before been accessible only to the few; and he brought out Bach's Passion according to St. Matthew for the first time since Bach's death. This performance showed the thoroughness of Mendelssohn's musical training. It took place March 11, 1829, in the Singakademie, Leipsic, and gave the initial impulse to the successful Bach propaganda in which Mendelssohn was a leading figure.

This understanding of classical composers was evidence of Mendelssohn's own greatness and his works today enchant his hearers as they did half a century ago. Mendelssohn when presented to Goethe was asked to play a Bach fugue. He complied but memory failed him. Without the slightest hesitation, however, he extemporized the forgotten development and his audience was delighted with his performance. Like Bach he thought in counterpoint and his quick wit and thorough understanding of musical terms made him famous for his extemporizing.

His study of and devotion to Bach influenced his works and like most great musicians he found the fugue an attractive form and has left us some excellent preludes and fugues for piano; of interest are his fugues for strings, among them one well-known one in E flat, and a number of organ fugues.

Among recent great fugal writers Rheinberger perhaps stands first. His fugal work in his organ sonatas is especially worthy of mention.

There is scarcely an instrumental composer of merit who has not tried his skill in fugal compositions, but we shall carry the history of fugue no farther, for in fact it would be but a narrative of the successes and failures of the followers of the greater masters we have already considered. The modern world has evolved nothing farther in the way of the fugue than was given us over a century and a quarter ago, though in minor details and especially in the kind of themes used, the artists of today show their individual taste.

With a very general idea of fugal composition and of its historical and chronological development we come now to inquire more specifically into its construction.

We shall infer that the reader has made a study of the foregoing chapters and has a knowledge of the musical terminology which we must perforce use in the following explanations.

SUBJECT.

In considering separately the essential parts of the fugue we shall begin with the all important subject or theme. On this the entire composition depends; it is the central or leading idea and all other parts are subservient to it.

The subject is announced by a part or by parts which clearly enunciate it. Except in the case of an accompanied fugue, or fugue with more than one subject, the subject is entirely unaccompanied though the melody is capable of being harmonized and the harmony is implied. In the accompanied fugue the announcement is heard simultaneously with a full harmonic accompaniment.

The subject is announced by itself, but that does not necessarily mean that but one voice or part only is heard during the opening measures, for fugue is written in from two to eight parts and where there are two, three or four parts, each one begins either with the subject or the answer and the subject is often then described as double, triple or quadruple. However, most authorities refuse to consider these terms as the very nature of a fugue does not permit of more than one principal theme, and Cherubini calls such fugues, fugues with one, two or three counter-subjects, which seems to better preserve the idea of unity.

Owing to the use of the old church modes the early fugue forms lacked clearness in the subject and left one rather in doubt as to the key in which it belonged. In its perfected form, however, the tonality is clear, it complies with the laws of musical phrasing and the implied harmony is at once felt. The harmonic progressions throughout the course of the composition elaborate, explain, and never allow the listener to lose the distinct feeling of the key of the subject. Though there are modulations from the subject key the relation to it is close; when, for instance, we find the subject in a minor key the modulation is to the dominant minor not to the major key. The subject generally remains in the original key but it may begin in the tonic, modulate and end in the dominant. Less often we find it beginning in the key of the dominant and ending in the key of the tonic. Aside from these two modulations others are not common, though rare cases can be cited where a subject begins in the tonic, modulates to the dominant and returns to the tonic. A fugue of Bach in E minor begins the subject in the tonic and ends in the subdominant, and Prout gives us examples of fugue in which the entire subject is in the key of the subdominant.

Of greater interest than the above technical but necessary explanation is the study of the character of the theme. No definite rule can be laid down for this construction and the imagination and purpose of the composer are clearly shown in the nature of his subject. Generally speaking, a good fugue subject contains a complete musical phrase, that is, a passage containing some distinct idea and finishing with a cadence, so giving that feeling of wholeness or completeness in itself. It is not necessary that a full cadence finish this phrase though one is often employed, but the final notes must be capable of being harmonized.

The student of composition will find in most text-books upon fugue the statement that the subject must be moderate in length, and yet, some of the greatest fugal works have subjects of considerable length and again others contain a very few notes. It is not difficult, however, to understand why the subject of moderate length is considered best. It is easier to recognize such an one when it reappears than it would be a long drawn out one which the mind might not hold in its entirety. On the other hand the very short one, unless of a peculiarly distinct and remarkable character, would not hold the attention nor make the impression that is necessary for the appreciation and enjoyment of a fugal composition.

In vocal subjects the text is, of course, considered and the subject is designed to cover either the entire sentence or at least a complete member of a sentence, the reason is obvious and needs no further comment.

Another important factor in a good fugue subject is that of the compass employed. As we proceed with the further study of the parts the reader will readily see why a range of more than an octave for vocal fugue would make the work too difficult when through modulation it is carried into other keys. It is true there are fugues, and good fugues, where a compass of even a tenth is used. The difficulty in instrumental fugue in using a great compass is that the parts are liable to pass or cross each other and make the composition less clear. Bach has shown us that a large compass is not necessary to produce a perfect fugue, for in two of his finest numbers among the well-known Forty-eight Piano Fugues, numbers four and thirty-three, the compass of the subject does not exceed a fourth.

For the reader who may some time chance upon the terms andamentos and soggettos in connection with fugue subjects we will here explain their significance. Andamentos are applied to such subjects as are in themselves complete and very rhythmical melodies, which hold the interest throughout the fugue by their own intrinsic beauty. While a subject must hold the interest and in a sense be complete it is not in itself necessarily beautiful, though it becomes so when supported and developed in the course of the movement. Such subjects usually consist of a short passage with perhaps a characteristic interval, and to them is applied the term soggettos.

Before considering the essentials and relation of the answer, let us have clearly in mind just what we are to look for in a good subject of a good fugue. First, we will listen for the melody, and hope to find it simple and yet striking, of moderate length and moderate compass. We shall expect to feel the possibility of harmonies, the clearness of tonality and distinctness of form, and as we follow it through the various movements be impressed with its beauty as a whole of which the foregoing are essential parts.

We shall hear the subject once absolutely alone and again, through the course of the fugue, many times with counterpoint, so it should be a reasonably easy task to fix it in mind and recognize it whenever it recurs.

ANSWER.

As all other parts are an elaboration or outgrowth of the subject we must look to its treatment in considering the reply or answer. We have already made the broad statement that the answer is the subject transferred to the degree of the dominant. Upon the nature of this transposition depends the character of the answer; which in turn determines to which of the two pure and classic types a fugue belongs. When there is an exact transposition, a mere copy of the subject, but given a fifth higher or a fourth lower, then we have a real answer and the fugue in which it occurs is a real fugue.

If the subject begins and ends in the key of the tonic and does not modulate to the dominant the real answer is possible. Again when the subject begins on the tonic and skips to any note other than the dominant without modulation to the dominant, or when it skips through the second or sixth from tonic to dominant, the real answer is possible but a tonal answer may be used. It is usually real when the subject begins on any note other than the tonic or dominant. There must be no actual or implied modulation in the subject to require a real answer. By implied modulation we mean that though the leading note of the key is not really present, the form of the melody and especially its last notes show with greater or less distinctness that they are looked upon as belonging to the key of the dominant, and produce the effect of being in that key.

In the tonal fugue the answer is a modified rather than an exact transposition of the subject; that is, one or more notes are altered in order to preserve the due relation of the tonic and dominant and so keep both subject and answer within the confines of a scale.

When the subject begins or ends in the dominant, when it begins in the tonic and skips directly or through the medium of a third, or when modulation occurs, the reply is a tonal answer. The melodic form of the subject is preserved as far as possible in the answer. Themes which modulate to the dominant require an answer which modulates from dominant back to tonic and the modulation is made at the same point, usually at the end of the theme, in both subject and answer.

We occasionally find a semitone in the subject answered by a tone, or a tone by a semitone, though as a rule the transposition to a fourth or fifth is exact. Again when inversion is employed it is not always a strict inversion but the tonic and dominant respond to one another and so preserve the underlying principle of the tonal answer.

The devices of inversion, augmentation or diminution occasionally employed in the answer are not characteristic of a fugue and are oftenest used in forming the stretto, but seldom at the beginning of the composition.

Everywhere one will find exceptions, but the fundamental rules as here stated are accepted by authorities and will give the reader an understanding of the essentials of a fugal answer. The principles to hold in mind are that the answer in melodic character is like the subject, that dominant answers tonic and tonic dominant, that the nature of the answer determines the nature of the fugue, and that an exact transposition is a real, while an altered one is a tonal answer. In the tonal fugue then we find that its chief characteristic lies in the journeyings back and forth of subject and its altered self, as answer at a distance of a fifth from each other.

COUNTER-SUBJECT.

In considering the episodes in the early part of this chapter we said that they depended for their material upon the subject or counter-subject. As the range of variety throughout the fugue is largely determined by the development of the episodes, one can readily understand why the composer seeks for individuality of and contrast between the subject and counter-subject. We shall expect then considerable freedom in the construction of this part of the fugue, as we find in it the first real suggestion of the later possibilities in the way of intricate interweaving of melodies.

The counter-subject is a counterpoint at the beginning accompanying the answer, and is employed throughout the fugue as an accompaniment to the second, third and subsequent appearance of the principal theme, whether given as subject or answer. While in rhythmic and melodic treatment it is as different as possible from the subject, the thought of unity is everywhere preserved in the composition and the counter-subject is always thoroughly consistent and is suited in character to the subject.

Double counterpoint is employed in its construction, usually in the octave, occasionally in the tenth or twelfth. The necessity for this is evident from the fact that the counter-subject acts as an accompaniment to two somewhat slightly different phrases and also because it is during the various developments necessary to use it above or below the subject.

One method of effecting the variance between the subject and counter-subject is in the employment of an episode between them so that the counter-subject does not enter with the first note of the answer and hence acts as an accompaniment to but a part of it. Difference in the duration of notes in the two phrases sometimes is effective without in the slightest degree diverging from the real character of the subject. Again the ear is sometimes left in doubt as to the key of the counter-subject, though we know it must be the same as that of the answer, it is not always clearly defined until nearly the close. Rests may occur in the subject and none be found in the counter-subject.

In studying the tonal answer we found that when a modulation occurred in the subject, a modification was necessary to make it into the tonal answer; this modification in the counter-subject is frequently made unnecessary because of the freedom employed in the matter of its entry, that is, it does not necessarily have to enter until after the modulation has taken place, thus preventing too great a complexity at the start.

In the greater number of fugues we find the counter-subject appears during the first exposition in the manner stated, but it is possible for it to enter later. In such a case, although a counterpoint accompanies the answer and perhaps another part, it is not again used. The regular counter-subject when it does enter accompanies every succeeding appearance of the subject until the coda is reached.

Again we find that a second counter-subject may be introduced and they then work together with the subject in triple counterpoint; or, the first counter-subject may appear as an accompaniment to the answer and subject only during the exposition and its place be taken on the next entry of the subject by the new counter-subject. This employment of one and then another is very rare.

Bach even shows us that a regular counterpoint is not essential to all fugues, for he has applied the various musical devices to the subject itself and employed a number of strettos.

We have been concerned with the more common use of the term counter-subject, but must remember it is also used to describe the two subjects in a double fugue where they are announced almost together at the beginning of the exposition.

Equal importance is given to the subject and counter-subject of the double fugue, which we will consider later in this chapter.

EPISODE.

The purpose of the episode, or digression as it is often called, as previously stated, is for the sake of contrast and relief to the essential parts of a fugue. It is frequently through its use that the modulations of a fugue are made.

The episode between the subject and the answer, or answer and the re-entry of the subject, is by some termed the codetta, and a close study often reveals it to be the later real episode in embryo. It is very short, seldom exceeding more than two measures, but by retarding the reappearance of the subject and the entry of the counter-subject causes an interesting digression, gives greater individuality to the part retarded, and leaves the part it follows clearly defined.

The real episode follows the exposition and in it neither the subject nor answer need be found. In this way it makes a complete diversion, and yet an episode usually originates from a previous motive found in some part of the exposition. The return of the principal parts makes a greater impression because of their absence during this digression.

The motive suggested, all the composer's art is brought to play upon it, he employs canonic imitation in strict intervals, or freely imitates it in any interval, he prolongs it by repeating it in sequence, augments or diminishes it, or inverts and then treats it in any of these ways until to the uninitiated it appears entirely foreign to the theme of the fugue. This, of course, is contrary to one of the laws of art and the kinship of parts is felt by the student or musician.

It is possible to form an episode from entirely new material, but it is always suited to all that preceded it. Occasionally in one fugue some of the episodes are developed from a motive already used while others are of new material. It is sometimes made consistent by weaving into it the principal theme with the new idea, but without any fugal imitation or any contrapuntal device.

Freedom is also employed in the length of the real episodes; usually they are short, of two or three measures, that the mind may not be carried too far away from the basic theme, and again they extend to great lengths, fourteen and even more measures, according to the composer's feeling of proportion and balance. While fugues without even one episode are possible they are, in consequence, of merely technical interest and to any but the student lack charm and fail entirely in emotional character.

We have seen how the subject and answer continue their entrances at a distance of a fourth or fifth from one another and so confine the work to the tonic and dominant keys, except in the second exposition of the fugue, where entries at other distances are made. The use of an episode as a means of modulation prevents the necessity of varying the distances which would cause a change in the form of the subject itself.

EXPOSITION.

After our study of the various parts we are now ready to deal with the exposition as a whole. The order of the entry of parts first concerns us, just what we may expect in the matter of sequence of the parts we have been considering. In a two-part fugue this is a simple matter, either part may lead with the subject and the other follow with the answer, while the first accompanies it with counter-subject or counterpoint and the exposition is completed. In the three-part fugue any part may begin with the subject. If the highest or soprano begins, the alto generally takes up the answer and the tenor the subject in its second entry. When the alto announces the subject it is immaterial which of the other two proceeds with the answer. In rare instances the soprano or tenor leads and the other follows, while the alto enters last. The part which enters first gives the counter-subject while the second entering part is giving the answer, then when the third enters with the subject the second which has completed the answer takes up the counter-subject, which now is transposed a fourth or fifth and possibly modified, and accompanies the subject. The leading part now adds a second counter-subject and the three are written in triple counterpoint.

To make this order, which is in a general way carried out in fugues with more than, as well as, three parts, we will here give the following table, the numerals standing for the parts according to their entries: I — subject; II — answer; I — counter-subject to II; III — re-entry of subject; II — counter-subject to III; I — second counter-subject to III. This practically completes the first exposition of a three-part fugue, but in order to show the counter-subject as an upper and lower counterpoint in this first exposition there may be an additional entry of subject or answer by the first entering part while the last supplies the counter-subject. Without this, in case the highest or lowest part leads, the counter-subject will always be above or below the principal themes and keep this relative position. This extra entry is not needed when the middle part leads, for the counter-subject will occupy the position below the first or above the third part.

We have already spoken of the episode as the means of establishing the individuality of the subject and counter-subject, and as a part of the exposition we again mention it here and explain its further use. It may come between the first entry of subject and answer or between the answer and the second entry of the subject. If the subject begins in the tonic on the first beat of the measure and ends in the tonic, the answer will come below in order to begin on the dominant, and as the fourth does not harmonize with the tonic a separation is necessary to defer the entry of the answer until the following measure, hence, the employment of episode. Again, if the subject begins on an unaccented note near the close of the measure and ends on an accented note at the beginning of a measure an episode is used and prevents the feeling of an unfinished melody.

If the subject begins with the tonic and ends on the third or fifth of the tonic, the episode is generally necessary, as the last note of the answer will be the third or fifth of the dominant, against both of which the tonic is a dissonance. Other instances of like nature might be cited but enough have been stated to show the uses of the episode.

Greater variety in the entry of parts is, of course, possible in a four-part fugue. On the entry of the fourth part two free parts must be added to subject and counter-subject instead of one as in a three-part fugue. There is no absolute rule for these entries. When highest or lowest parts lead the others usually appear in ascending or descending order. When one of the middle parts announces the subject it is commonly followed by the one next above or below it and that by the part nearest it and will so close with either highest or lowest part. Letting I and IV represent highest and lowest, the following are examples of entries: I-II-III-IV or IV-III-II-I; III-II-I-IV; III-II-IV-I; II-III-I-IV; II-III-IV-I. Others are possible though these are generally considered best.

Examples of fugue can be found where the parts do not all appear in the first exposition; three may enter there and the fourth be added later by augmentation, and even a fifth before the close of the fugue. Again, the subject may enter twice in succession before the answer is given.

A counter or second exposition sometimes follows the first exposition either at once or after an episode. The tonic and dominant keys or whatever keys found in the first will be used in the second exposition, but the part which gave the subject now gives the answer, and answer may lead or subject follow subject, or answer follow answer, so there is not necessarily any rigid observance of the order of reply nor of the relation of subject and answer. Another difference between the first and following expositions is that as a rule in the second exposition the leading part is at once accompanied by free counterpoint.

The use of a counter exposition rests with the composer as it is not an essential of fugue, but because it allows greater freedom in the matter of entries and there is room for use of modification of the first entries by means of inversion, it affords variety and is frequently employed.

This formulation of the exposition is in accordance with the older authorities on theory. The modern tendency, however, is to take great liberties with this part of the fugue. So much so in fact that some of the more recent authorities, particularly in America, do not consider that the exposition in the newer fugue is really subject to analysis.

STRETTO.

We find the term stretto in many forms of music used in the sense of increasing the time or a hurrying of parts. The word is derived from the Italian verb stringere, to draw close, and in fugue it signifies the part in which subject and answer follow each other at shortened intervals. Its purpose is to heighten the interest and hold the attention of the listener. Stretto is not universal in fugue but as a rule we find one and in an elaborate composition at least two strettos, and a larger number is possible.

The composer who intends to use stretto prepares for it when writing his subject, that is, he uses a theme which will permit of combinations at various intervals and several distances other than those first employed. Any interval may be used and any number of parts. The general order and method of imitation usually characterize the relationship of the replies in the same section of a fugue, but occasionally in the stretto it is impossible for the entering parts to continue the subject or answer after another part has entered.

A subject is often capable of a variety of strettos through the various devices of augmentation, diminution or inversion in the imitation. When several strettos are used in a fugue the closest and most elaborate is reserved for the close that the interest may increase and the highest pitch be reached in the final one. An excellent example of the use of strettos in this manner is found in Bach's first fugue in the Well-tempered Clavichord. As in the episode, we occasionally find the material for the stretto drawn from the counter-subject as well as from the subject; again, but a part of the original theme may be found and the continuation be of new material.

A close stretto, or a stretto maestrale, as it is sometimes called, is one in which each part continues the subject to the end, making a strict imitation. A slight modification is here permissible and the entries are not necessarily regular.

When, as we find it in rare instances, the first exposition is in stretto the answer entering before the completion of the subject and often immediately after it begins, and the third and fourth entering parts following the first and second with subject and answer usually at the same distance and interval of time, the fugue is called a close fugue.

It is not here possible to cite the many ways in which composers use their ingenuity upon this part of fugue, but in general we may expect the following in a stretto: a gathering together or hurrying together of principal parts with either subject or answer leading; all parts entering, most satisfactory when at an interval of fourth or fifth, though any interval may be used; replies made by augmentation, diminution or contrary movement; if necessary a slight alteration in the subject and a pedal or double pedal point employed for the close.

CODA.

Often an independent passage or coda is added after the climax for the purpose of giving a more determined or elaborate close. It sometimes contains a pedal on the dominant, sometimes also on the tonic. Occasionally the entire coda or the last part of it is harmonic in structure rather than contrapuntal. Bach frequently ends his fugues with an elaborate cadenza.

We have in our study of the answer, referred to the tonal and real fugues, and again mention them with others that the reader may have clearly in mind the meaning of these terms.

The real fugue is of older origin than the tonal fugue, and as perfected by the polyphonic composers of the Sixteenth Century was of two kinds, limited and unlimited. The limited was the form we now call canon and so no further concerns us here. The unlimited was always a vocal fugue. It started with a very short subject which, of course, was necessarily adapted to the verbal text. The answer always began before the end of the subject which was repeated note for note for a short distance and then the part giving the answer became free. No counter-subject was used, so a new verbal text required a new musical phrase, which was used as a second subject. Unlike our present form the opening subject did not always reappear during a later development. This was the form which the school of Palestrina perfected.

When the modern scale was substituted for the old church modes there came the first departure from this form. The answer had to be adapted to conform to the new law, and as soon as this took place then the whole fugue was transformed and the modified answer came into existence and with it the tonal fugue. As before stated, the tonal answer is the subject under a new aspect, and its effect corresponds with that produced by the subject itself.

The ricercare or ricercata, a fugue with research, was a strict fugue in which the various devices of canonic imitation were used. We also find this name applied to fugues without episodes.

The term fughetta, as the name implies, is a fugue in miniature. As to form it is complete but there is a curtailing of parts that prevents it from being a regularly developed fugue. It contains an exposition but the middle section is very short or is omitted entirely, in which case an episode follows the exposition and leads to the final entry of the subject in the tonic key. In some fughettas there is not even one episode and the exposition is followed at once by the final entries. The term has been rather vaguely applied and even some regularly developed fugues have been called fughettas. In Bach's organ arrangement of chorals are many examples of fughettas and number twenty-four of Beethoven's thirty-three variations is written in this form.

Fugato is applied to an irregularly fugued movement By this we mean a movement in which the same subject is introduced successively in the different parts but the entries are not at the regular interval of subject and answer or are employed so incidentally. Fugato passages are often employed in orchestral music and are very effective. Beethoven has used them in the first and last movements of the Eroica Symphony, Mendelssohn in his Italian Symphony, Haydn in his "Creation," and Mozart in his "Requiem."

Up to this point we have been concerned with the construction of the more common kind of fugue, that with one subject, but shall now briefly describe those founded on two or more subjects.

The double fugue, as its name indicates, contains two subjects. In the early part of the chapter we spoke of the use of the terms double and triple subjects and we find some writers applying the terms to the fugues themselves. We have used the term counter-subject even where the same counterpoint is used throughout to accompany the subject. It is wiser to restrict the name double fugue to the fugues in which the two subjects appear at once, not necessarily announced exactly together but after the second does come in the two proceed in unison; or, the fugue in which each subject has a separate and complete exposition before the two are heard in combination.

As a rule a double fugue contains four parts, though we do find them with but three. There is usually a contrast in the melodic and rhythmic treatment of the two subjects so their individuality is recognized whenever they appear. The entry of the subjects, the second as accompaniment to the first, makes the form of exposition different from that in the simple fugue. When there are four parts they work in pairs, two give the subjects and the other two follow with the answers, which are frequently inverted though often their relative positions are retained.

This is the simpler arrangement, but we find others where one of the parts giving the subject proceeds with an answer and a new part enters for the other answer. This necessitates a more elaborate exposition and it is complete only when each part has appeared as subject and answer.

As a rule, both subjects are heard together in each group of the middle entries. The development of one of the subjects without the other frequently takes the place of the episode as used in the simple fugue. When strettos are employed we rarely find both subjects, and this development may be found in place of a regular episode.

When, as in the other rare varieties of double fugue, the separate subjects have their own expositions there is a different course followed. The treatment in general is quite the same as in the other, except that the combination of the themes is reserved for the climax. We sometimes find a regular exposition for the first subject and only a partial one for the second and the two separated by an episode. Or, after the exposition of the first subject and answer there may follow a counter-exposition with entries in reverse order, and this followed at once by the exposition of the second subject and answer.

The use of expositions, counter-expositions, episodes, strettos and isolated entries depends upon the taste and design of the composer, so we find examples of double fugue in as great a variety as in fugue in one subject. However much the separate subjects may be developed the general rule of treating first one then the other and the combining of both is carried out in all.

The triple fugue is founded upon three different themes which appear together as a threefold subject during some portion of the composition. After the three parts have announced the three subjects, either together or singly, the fourth enters with the answer to the first subject, two of the other parts giving the other two answers, while the fourth may add a free part. Then different parts take the subjects and answers and when each has given the themes as subject or answer the exposition is complete. The same subject is not heard twice in succession in the same part.

The quadruple and quintuple fugues, or those based on four or five subjects, are very rare. They are so complex and of so little practical effectiveness that their study would be of interest only to the student of technique.

The other two variants of this form of music are the fugue on a choral and the accompanied fugue.

Of the first there are two kinds. One where the fugue pursues its usual course while the choral is woven in during its development as a kind of cantus firmus, or as an episode. An independent subject is used, in no way suggested by the choral itself and the lines of the choral are introduced with this as a cantus firmus. The order of entries is seldom strict. The number of modulations is somewhat limited as none of the phrases of the cantus firmus can be transposed into other keys, though between the different lines of the choral there are little digressions which afford opportunity for variations.

The other species is that in which each of the choral melodies is treated as a subject. Usually there is a separate exposition for each subject or each line of the choral and as in the other there is much freedom allowed in the matter of entries. In the counter-expositions we frequently find the first voice entering alone, but it may be accompanied as in the double fugue. In the longer compositions there will be greater variety because the harmonies of the different lines may be varied, and in fact the manner of development of the fugue depends upon the course of modulation of the choral itself. There is comparatively little modulation in the simple chorals and that only to nearly related keys.

We have an accompanied fugue when besides the regular fugal expositions and developments there are independent parts for other voices or instruments. The most common form is that in which the regular fugue is sung by a choir of voices while an orchestra plays a partly independent accompaniment. Again, the exposition of a fugue may be sung by one choir and accompanied with full harmony by the other.

We frequently find parts of the orchestra giving free variations of the voice parts and the harmony being filled by new and independent figures of accompaniment or the orchestra may supply a counterpoint which is quite independent of the voice parts.

It has been said of Bach's fugues "they have no end; when you have played them through you have not played them out." The same might be said of the study of this most important form of polyphonic music: there can be no exhaustive description of fugue, a form so definite and yet so indefinite, so complete and yet so incomplete. Definite in general outline, in progressions and scheme of development; indefinite in variety and number of developments; complete in that each part is so finished from an artistic and technical standpoint and yet never quite complete, for it leads on to another development which explains, makes clearer the theme that can be sustained, still varied, still preserved on and on without end. It is the unfolding of a musical germ, for in the theme lies all the latent possibilities, and the first phrase prophesies and contains all the steps that follow, while the last development is the reason for the beginning, it presupposes, comprehends and justifies all that went before. Every variation belongs to the whole of which it is a part, not simply following in succession one after another as separate parts but as a process of development, one growing out of another. "To know one element explore another and the second appears in the first."

Fugue perhaps more perfectly than any other form of music lends itself to comparison with other arts. In truth it exemplifies the laws of growth, of development, as we find it in nature, art, history or philosophy.

We have traced the evolution of fugue from the early stage of part writing to its culmination in Bach's works and have seen how the crudest efforts of musicians belong to the scheme of growth. We know that a musical crisis was reached at the time this form was perfected and the fact that years passed after Bach's death before his music was appreciated shows us that he was a man far advanced beyond his age.

Today the trend of public opinion is away from things purely artistic and, as musical history shows us, composers have sought new fields wherein to develop their ideas. This is quite as true of other arts and we find the utilitarian combined with the artistic; we find painting and drawing devoted largely to illustration of a definite kind; and literature to illustrative stories full of human interest, varied and concrete in treatment and characterization. There seems to prevail a feeling that the adoration of mere beauty for its own sake is sometimes unwholesome and that human energies are sapped by art rather than nourished by it.

With this tendency to lead away from mere delight in design and abstract beauty of form we are apt for a time to lose sight of much that is truly great in art. Popular opinion long classed fugue as an unintelligible form, of interest only to a student of technique. As we have earlier shown this was true of much of the polyphonic music during those necessary stages of growth before Bach's time, but though a fugal composition requires study on the part of the listener as well as performer, fugue as Bach and his successors have given it to us contains not only beauty of design but holds as great a human interest as any of the more popular forms of music; and long after others have ceased to be of value except as they have led to something more perfect, the splendid fugal writings of the masters will hold their place; in them the very essence of art is found and though seemingly intricate and complex compositions they are complex only as we fail to grasp the plan of the whole or lack imagination to think in the language of the musician.

FORM

As a knowledge of any branch of human endeavor tends to increase our interest and pleasure in life, so an understanding of the basic principles of musical composition will aid the music lover, who is without technical knowledge of the subject, to a larger and more thorough enjoyment of music. If to simply hear good music is one of the greatest of pleasures, how much more intense must be the enjoyment of the one who understands the composition to which he is listening. To the pleasure of the sense is added the pleasure of the intellect. There is no branch of music whose study is more fascinating than the study of form, nor is there any which will give such great returns in pleasure and profit, in proportion to the time spent upon it, as that outlined in this chapter; such study stimulates to a wide range of observation and develops a keener insight into music than is likely to come in any way, except by much longer and deeper study; but for the music-lover, in distinction to the student or teacher, there is no way to gain an understanding of music comparable to the ability to analyze form. With the understanding of form comes a grasp of the composer's intentions that cannot be gained in any other way, and this general understanding of form can be gained by the careful reader without unusual mental effort.

All art is subject to laws of the past. Now and then a genius arises whose works are apparently beyond all laws and we say he is so great that he is a law unto himself, but closer scrutiny shows that the product of his intellect is grounded upon certain basic principles. While his own individuality may force him to reach into the future, he is ever governed by the laws of the past. Speaking of the laws of art-forms Goethe says, it is "genius, natural talent, that is the first to understand them, and that pays them the readiest obedience." A composer would no more undertake to write a composition without a plan or design to which he proposed to conform, than would an architect undertake to build a building without a definite plan. Neither can he build great structures by random work or piece-work. He would very probably change many details and add many embellishments during the construction of his building, but of necessity, these would conform to his general plan or he would be starting from nowhere and could expect to arrive at no definite artistic conclusion. This plan or design, in conformity to which a piece of music is written, is called its form.

Music is either purely instrumental, purely vocal, or mixed. The composer of instrumental music is freer from restraint than the composer of either vocal or mixed music, as he is in no wise hampered by the limitations of the voice or by the necessity of adapting the music to the words to be sung. In this chapter we treat largely of the monophonic forms of instrumental music. The difference between polyphonic and monophonic forms has already been explained in the chapter on fugue. The word monophonic is derived from the Greek mono, meaning one, phonic, sound or tone, the entire word signifying the importance of one sound or series of tones. In fugue, or the polyphonic form, melodies are introduced for the different voices or instruments to carry on in harmony, the same melody acting as accompaniment to itself in two, three, four and sometimes even more parts, while in monophonic compositions one melody is introduced at a time, its accompaniment being harmonious but not necessarily a melody. The critics and analysts of music have not come any nearer agreeing on the divisions and names of the forms of music than on many other subjects connected with the art, except that there is a very general agreement on the titles and definitions of polyphonic and monophonic music. Under the latter form writers have pointed out many different divisions such as the classical, romantic, operatic, dance, popular and sacred forms, but it can be shown that the first three of these can be reasonably and logically said to include all forms of monophonic music, and as a consequence we shall here consider the first three only. While these forms are all monophonic yet in all of them short passages may be contrapuntal, polyphonic or fugal in style, but these are not of sufficient length to make their form predominant, or even conspicuous, in proportion to the structure of the entire composition. We will first consider the classical, then the romantic and operatic forms, giving definitions and explanations as we take them up.

Form in music in a general way stands for clearness, attractiveness or order, order being as necessary and ever present in good music as in good architecture. In fact, order or form is the prime requisite of good music, as every thinking being is attracted by order and repelled by disorder. The tones in music are unsubstantial and transient, a single tone or chord cannot give a lasting impression, the pleasant sounds appeal only to the sense, but adherence to a definite form gives stability. Truly artistic music appeals, because of its form, to the intellect, and through the intellect to the emotions. And it is for this very reason that every music-lover should understand and be able to some extent at least to analyze form, as it is by means of form music makes its intellectual appeal. In keeping constantly in mind the ever present necessity of form in music the reader should not gain the idea that it leads to monotony, for the first requirements of good form are unity and variety, both of which are necessary to insure interest and which when evenly balanced assure good form. Unity is apparent in the holding together, the oneness of the entire composition; variety, in the details, in the various differences in key, tempo and structure of the passages. The necessary presence of unity and variety in every art work of whatever kind is emphasized by all critics in every branch of art. In painting there must be variety in drawing, texture, color and form, or interest would be lacking, but all these qualities must be united by the artist in order to produce a sense of completeness or entire satisfaction. This is so generally understood and accepted and is set out at such length in every treatise on æsthetics that it is not necessary to enter into it here.

The evidences of form in music are the presence of beats, measures, rhythm and melody. The beats and measures are visible to the music reader and performer, the listener learning of their presence because of the accent, which is always noticeable when music is properly performed on any instrument, greater stress or accent being usually placed upon the first beat in each measure than on any other beat. The same system of grouping beats into measures is used in gathering measures into groups and the regular succession of accents or tone-impulses determines the rhythm, which will be explained later. The fourth evidence of form and by far the most important one, in fact it may be said to control the form, is the melody. From the melody the form is defined and recognized. The notes of the principal melody are usually placed above the other notes and rendered by the instruments or voices of the highest pitch, as these notes strike the ear with the greatest emphasis. The melody is God-given. While, as has already been stated in a previous chapter, there are certain rules governing the writing of melody it comes from the composer's heart. The rules for harmony and form may be learned and followed absolutely; the resultant composition will no more be inspired than will the Latin verses of the English grammar-school boy, which conform to all the rules of Latin grammar and prosody, be real poetry. The poet and the musician must both be born with the song in his heart; then having learned the rules of his art he can put his inspiration into permanent, lasting form which will make its appeal to his fellows, and the more correct that form the stronger and more lasting will be the appeal.

The motive is the smallest musical unit; it is the idea or musical thought, and ultimately from it develops the entire structure of the composition. The use of the word motive should not be confounded with the German word "motif," often translated motive, and which is applied to passages of varying length made to represent or signify various persons, objects or emotions. The composer Wagner in his operas, especially in those of the Ring, brought these passages into very great prominence. The motive he used varied in length from a few notes to several measures. Here we are considering the thematic music in distinction from lyric. In lyric music the melody flows on, while in thematic music one theme or musical expression is used again and again in the course of the composition. The motive we are considering is usually short, but in order to render the metre of a musical thought intelligible to the ear it is necessary that it extend beyond one measure, so constituting a section, with an usual extent of two measures.

We are now ready to consider a more definite part of our building up process, the phrase, which is really an extension of the musical idea to cover generally four measures, usually containing two sections, making it a fragment of a melody. It corresponds with the phrase in language, conveying to the hearer the distinct consciousness of the beginning and course of a musical thought, but not necessarily complete sense. Although phrases are frequently modified as to length, the original mathematical form is never lost, and upon analyzation by a musician the form can be perceived in all the classical music despite the modifications. The extra measures which deprive the phrase of its mathematical precision may frequently be omitted and the melody remain intact. However, they are not to be regarded as embellishments, but just as some phrases in literature to express the exact idea of the writer require words containing more letters or syllables than other equally complete phrases, so some musical phrases to exactly express the composer's thought must contain more notes than other phrases which appear in the same composition. In like manner they may be smaller than required by the particular form in use. To distinguish the length of phrases the terms simple and composite are frequently employed. The simple phrase is one consisting of but one rhythm, while the composite phrase covers two or more rhythms. None of the great masters has held himself absolutely bound by rules of form. This is exemplified for instance in one of Mendelssohn's compositions where is to be found a phrase twenty-two measures in length. On the other hand general acceptance may be given to the statement, that the compositions which have been the most lasting and the ones which today are looked upon as the greatest, are those which have been made to conform most closely to the established rules of form.

The phrase may begin either on an accented or unaccented beat of a full measure and it usually terminates with a cadence. It is necessary to emphasize the importance of the phrase, for from it all musical forms are built, and in all productions of music, whether instrumental or vocal, the proper accenting and phrasing is as vital as in the speaking and reading of a language. That the phrase may be distinguished by the listener it is necessary that an apparent change be made in the rhythm; this is brought about by the usual introduction of the cadence, which is the end of the phrase or the point of temporary repose between two phrases. The cadence generally occurs upon an accented beat and its presence is commonly made known by the lengthening of the chord which is sounded at that point; when this chord is built up from the key-note of the phrase the pause is said to be a full cadence; when the cord is that of the fifth it indicates a half or imperfect cadence. The significance of the full and half-cadence will be apparent later in this same chapter. The cadence is commonly very apparent, and rightfully so, as next to the knowledge of the melody, the finding of the true location of the cadence is the most important task in properly analyzing or interpreting music; yet in many cases the cadence is partially concealed by various technical devices which it is unnecessary to mention here as we are striving to gain only a general understanding of our subject; and in a few instances, though rarely, the cadence is entirely omitted by elision, one phrase being combined with the next and the separating cadence being entirely absent.

As the phrases in language are combined to make sentences so, too, the phrases in music are combined to make what are known to musical authorities as sentences, or periods, which term will be used here as it is the more modern and used by those who are perhaps the best authorities.

The great lack of unanimity in phraseology is one of the greatest difficulties yet to be overcome by musical theorists. Musical nomenclature like the scale, notation and everything connected with the art has been subject to an irregular and uneven growth and evolution. The greatest and deepest students of musical form have in the past been Germans. These men have not used entire unanimity in their nomenclature and when their works were translated into English by their English speaking followers, there resulted an annoying lack of uniformity in terminology, different translators using the same English words to convey different meanings, and worse still, if possible, different words for the same things. Some writers and critics have even gone so far as to coin their own words. The words or titles used here are those which have gradually grown into general acceptance and where there is a difference in terminology it is indicated; but not until musical authorities of all nations agree upon some fixed nomenclature can we hope to avoid misunderstandings.

The simple period is the outgrowth of the phrase, and is made by the addition of what is called a subsequent phrase to the first or antecedent phrase, the two being separated usually by a half-cadence which always signifies progression and the entire period generally terminating in a perfect cadence in tonic, dominant, or mediant keys. As a rule the subsequent phrase is related to the antecedent both in melody and in key, the melody in the subsequent phrase being much like that of the antecedent in movement and intervals, and its key being one easily derived from the key of the antecedent.

The simple period may be enlarged or amplified in many ways. One or both phrases may be repeated; three phrases may be used in place of two; or a double or compound phrase may be formed of four phrases, the second contrasting with the first, the third agreeing with the first and the fourth again contrasting with the third and agreeing with the second in melody and key. All these modifications agree with the simple period in that they contain only one full cadence which terminates the period, all the phrases are separated by an imperfect or half-cadence and all periods consist of alternate accented and unaccented measures. The different divisions of musical form must always be made up of full measures, no matter in what part of the first measure they begin; therefore, if a period begins with an unaccented beat the unaccented beat must be omitted from the last measure.

The statements previously made in this chapter treat of the elements, or parts and their connecting links, which when properly joined together go to make up the musical sentence or period as it is called in music. All larger compositions are simply a series of periods gathered together in accordance with certain fixed standards or rules which have been gradually developed by the great masters.

The two-part form seems to have been the natural musical expression of man, the statement and refrain being used by solo and chorus, or by male and female voices, as is so clearly shown in the Psalms of David. This form was early apparent in both polyphonic and monophonic music.

It is the simplest of all musical forms and being a repetition of periods or rather a union of them so that one constitutes the theme and the other a counter-theme, and is almost synonymous with the terms melody and tune as we commonly use them.

The German Volkslieder were written in this form; some theorists give it the name Lied-form but we use the English translation, song-form. It now embraces so many different kinds of musical composition, both vocal and instrumental, that the name primary form is considered more appropriate. If the reader will remember that primary and song form are synonymous, and that the underlying principle rests in the presenting of one musical thought followed by a second which contrasts with it and closes with a half-cadence in the tonic key, and then a return to the original for a conclusion, he will have but little difficulty in distinguishing the forms as found in various compositions, nor will be confused by the musical terminology as it is later applied to special forms described in this chapter. To the primary form the name binary is frequently applied to make a readier distinction from the ternary form. The binary form more fully exemplifies the idea of progressive growth than anything previously considered, as the second part serves as a balance and complement to the first. The first part consists of a musical period and usually closes with a perfect cadence. The second part contains, at least at the start, material that forms a contrast and affords the balance to part one. There is usually a slight change in the melody in part two and it frequently is more elaborate and extended than the first period and closes with a half-cadence in the tonic key; then comes the return to part one. Simple compositions are written in the small two-part primary forms and in them you find eight measures in the first period, four measures of contrasting material and a repetition of four measures of the first, while the more elaborate works come under the large two-part primary form in which the number of measures are doubled, sixteen for the first period, followed by eight, and a return to eight of the first part.

The three-part primary form is superior to the two-part in that a third period is added which is a repetition of the first, making a more rounded whole. The difference between the two and three-part primary forms lies in the length of the subsequent phrase and the repetition. In the simple primary form, as before pointed out, the second contrasting period is never but half the length of the first, and the third never repeats the first in its entirety, while in the three-part form there are the same number of measures in each of the three parts. The first period, preceded by the introduction, is the statement or exposition of the principal idea or melody; the second period is a distinct departure from the first, the final or subsequent phrase leading up to the third period, which is a repetition of the first and is followed by the coda. This three-part primary form is subject to enlargement by the repetition of the first part or by adding a combination of the second and third parts which gives a total of five parts, some authorities going so far as to make this a separate division, calling it a five-part form or a group of parts, but this is an unnecessary refinement of analysis as the enlargement is directly based upon the three-part form, and is on a larger and broader scale, as in it each of the three parts consists of a distinct primary form. First comes a principal song form in two or three parts followed by a second subordinate song form in some other key, perhaps in a relative minor key of the subdominant, the subdominant, or the key a major third lower than the first part; this is usually called a trio, which name is derived from a piece played with three instruments. Following the trio comes the repetition of the first song form in the original key. To this repetition is sometimes given the name da capo, meaning "the head," signifying a return to the beginning, for the reason that the older composers did not go to the trouble of writing out the score of the last movement but used the words "da capo" to indicate to the performer that the first movement should be repeated. The ternary form is the most commonly used form as in it are written many dances such as polonaise, gavotte, minuet and most of the old dances. All later forms are extensions or modifications of either binary or ternary forms.

It cannot be too often stated or too strongly emphasized that none of the rules or forms of composition are inflexible or unbreakable. In the past have appeared composers who were above and beyond all rules for form in composition. The rules are the general usage of the great minds of the past, and it is but logical to suppose that there will be great ones in the future who will make farther modifications. If it were not for this belief we could look only to the past and all hope for future development in music as well as in other arts would be dead. With an understanding of the primary and ternary forms we are ready to consider special classical forms and will begin with dance music.

The history of dancing and dances enters prominently into musical development and many of the classical forms of the music of today found their origin in dance music. The earliest dancing was little more than pantomimic action which told the story of adventure, or combat, by means of more or less rhythmical gestures. A rude accompaniment was sometimes used which did little but mark the time for the dancers, and when we read of the dances in the Scriptures we find the clapping of hands, rhythmic beating of the tambourine, or clatter of the timbrel to guide the dancers and singers. Not until we come to the dances of the Middle Ages do we find any connection between them and the modern forms of music. In the music of the Troubadours and Minnesingers there were dance-songs or "Tanzweisen," and in them we find the contrasted periods of our present primary, or song form.

The dances of the nobles, dignified, slow walking dances, and the merry, wild, hilarious dances of the peasantry afforded the contrast necessary to good musical form, and musicians soon began to combine the two. Then to preserve the symmetry they not only interwove the two contrasting dances but concluded by a return to the first movement, and gave rise to the tripartite form so largely used by modern classical composers. French, German and Spanish dances lent their influence and in the Sixteenth Century we find Italian composers combining three or four different dances and making a composition in the cycle form, which means simply a set or succession of movements called the partita, which in turn progressed to the suite. The dance music is of course written to correspond to the regular steps of the dancer and hence the rhythm is very regular, making this perhaps the simplest and clearest of all musical forms. Much of the music written in dance form, however, is not intended as an accompaniment to dancing and in it we commonly find irregular rhythms, for the composer is not restricted, and can employ variations impossible when obliged to consider the steps of the dancer. As a result of this freedom we have the idealized dance forms, such as we find in the works of Mozart, Haydn, Schubert, Beethoven, Chopin and Weber. We shall first consider those dances which are of special importance in that they were parts of the old suite, from which many of our modern instrumental forms were developed. Four movements were usually considered necessary in every suite of regular form, the allemande, courante, saraband and gigue, all written in the same key, though other dance forms were often introduced usually between the saraband and the gigue.

The allemande, a dance of German origin, immediately follows a prelude. Occasionally we find a suite without this opening dance form, but generally speaking it is considered a necessary movement. At the time it was adopted for the suite it had long been forgotten as a dance and consequently its construction is not as regular in rhythmic treatment as the three following movements. It is written in 4-4 time, tempo moderately rapid, and commences usually with one short note, a quaver or semi-quaver, at the end of the measure. The monophonic rather than the polyphonic style predominates, and the upper part or melody is of uniform regular motion but without strongly marked rhythms, and occasionally rather fantastic in treatment, while the accompaniment is comparatively simple. The parts usually contain eight, twelve or sixteen measures and less frequently ten measures. In Magny's Chorigraphie, Pecour, a celebrated dancing master of the opera under Louis XIV., left us the music of the allemande in 6-8 time, which shows it to have been a fairly lively dance in those days, though the original German allemande was slower and more somber, and in the suite it is always written in common time.

It is followed by the courante, one of the oldest French figure dances, very fashionable during the Sixteenth Century. The name was derived from the French courir, to run, and the Italian courante, or corrente, answers more to the etymological meaning of the name as it consists chiefly of running passages, while the French dance form is characterized by staccato notes. The French form is written in 3-2 time with rather rapid running movement with a short note at the end of the measure as is the first movement of the suite. In the old dance music there was a marked peculiarity in that in the last bar of each part you find 6-4 time in spite of the signature. As it ceased to lose its connection with the dance it underwent a change, and in the suite the two rhythms are frequently mixed, and often, though the signature is 3-2, the 6-4 time predominates throughout and the polyphonic style is used to clearly bring out these features. The Italian corrente is in triple time also, but is usually in 3-8 or 3-4 time and the tempo is somewhat faster. There is a strong contrast between the first movement, the allemande, with its simple tune and somewhat heavy character and the lighter, more complex courante which in the French form gives an impression of energy and vivacity, while the running passages of the Italian form suggest not quite so energetic a dance as a light, merry, playful one.

At its close, the listener is brought back to a less frivolous state of mind by the stately, serious saraband. This dance was of Moorish origin, but was quite as popular in France and England as in Spain. Only one dancer originally performed the saraband, and a voice accompanied him. Later it was transformed into a dance in which several participated. Its time signature is the same as the courante, 3-2 or 3-4, and usually consists of eight or twelve measure divisions. It is remarkable for its strongly accentuated rhythm, which is simple and yet majestic, making it far more regular in construction than the two preceding movements.

It seems to have been an unwritten law of cycle music that the final movement should be such as to leave the listener in a merry mood and nothing could better serve the purpose than the gigue, a hearty dance, which doubtless originated with no one people and in no one country as it was known in many lands in slightly varying forms at the same time. It was a rollicking, rapid dance, very regular in rhythmic structure. Various time signatures are used, as 3-8, 6-8, 3-4, 6-4 and even 12-8, and in the more pretentious suites the gigue assumes great complexity, owing to the rapid, continuous movement. Bach occasionally treated the gigue in free fugal style.

The gavotte is often used between the last two movements. It was originally a mountaineer's dance in the city of Gap, France, where the women were called gavottes, whence the dance received its name. It was, like many of the rustic dances, a good-natured romp and at first contained only simple steps, but later all kinds of difficult steps were introduced and many of the figures used in a minuet are found in the gavotte, though the latter is of a livelier nature. It is written in duple time and like the minuet is in ternary form. Often a second gavotte followed immediately after the first, and when it was played the performer repeated the first. There was always a contrast in character between the two, if one was in the minor key the other would follow in the tonic major or relative major key. This combining of the two really makes a ternary form, though each considered separately is a binary form.

Other dances often introduced into the suite are the bourrée or branle, the passepied and the minuet. The former, known also in English by the name of Brawl, originated in Auvergne, though some authorities call it a Spanish dance of Biscay, where it is still said to be performed. It is binary in form, lively tempo, in duple time, is similar in character to the gavotte, and as with the gavotte, the bourrée when used as a part of the suite; a second usually follows the first and then there is a repetition of the first, making a ternary form. It differs from the gavotte in that it always begins on the fourth crotchet of the measure while the gavotte begins with the third. The rigadoon is almost identical with the bourrée in musical form but is characterized by a peculiar jumping step. It is in 2-4 or in common time.

The passepied which, according to tradition, originated in Brittany is an old round dance which was famous in France during the time of Louis XIV., when it was introduced into the ballet. This dance was used not only between the last two movements of the suite but by some composers was placed before the saraband. It is written in 3-4 or 3-8 time, begins on the third note of the measure and is of a lively nature, and usually ternary in form.

Of the idealized dance forms earlier mentioned the minuet is the most important. It sprang from a dance of the same name and has found a permanent place not only in the old suite but in large instrumental classical works. Its origin has never been settled upon, though it is said to have come from Poitou. Doubtless it was an ancient dance, though the earliest known minuet music was composed by Lully in 1662 for Louis XIV. In form it is ternary and is written in 3-4 or 3-8 time. Bach preferred the former and Händel the 3-8 signature, as is shown by their works. With Haydn the old minuet lost some of its stateliness and became less solemn. In fact, many modern minuets are quite merry; the tempo is faster and the innovation introduced by Haydn of beginning on the third beat of the measure instead of the first gives a more delicate touch to the composition and makes it on the whole less heavy than the older form. An outgrowth of the minuet is the scherzo, the name derived from the Italian scherzare, to joke. In form it is like the minuet, so the name denotes merely the character of the music. While the minuet is always in 3-4 time the scherzo may be in duple or triple time, and in its more developed form almost ceases to belong to the dance forms.

The historic importance of the minuet lies in the fact that unlike other ancient dances it has not become obsolete but still holds its place as a part of large instrumental works. Haydn first introduced it into the symphony and Beethoven transformed it into the scherzo, since which time a large majority of composers have used the latter lighter treatment of the form in preference to the old minuet, as the quicker time and more varied rhythm are not as likely to prove monotonous. Mendelssohn used the older form in his Italian Symphony and Schumann in the second movement of the E flat Symphony, but generally speaking the history of the minuet ended with Beethoven.

The bolero, a characteristic dance of Spain, is usually written in 3-4 time, though there is a frequent change of time during the movement. The dancer accompanied the steps with castanets and the rhythm of these instruments gradually became a part of the music. It generally consists of two principal parts, each repeated and, a trio, making it of ternary form; frequently the castanet rhythm is heard through one or more measures before the melody begins. The bolero is used in many operas in its dance form complete and composers idealized it by using irregular rhythms though still retaining its chief characteristics.

Another dance form in favor with both instrumental and vocal composers is the Polish polonaise. Bach, Händel, Beethoven, Mozart, Schubert, Weber and Wagner, Chopin, and many Polish composers of less note than Chopin, have used it in large and small works. There are two theories existing in regard to the origin of the polonaise. One is that it was evolved from ancient Christmas carols such as are today sung in Poland, and it is true there is a likeness in the rhythm of the dance music and in the lines of the old carols; and it is known also that at one time the dance was accompanied by singing, though the only polonaise music now in existence is purely instrumental. The more generally accepted theory is that it sprang from an old court dance or promenade. To celebrate his election to the Polish throne Henry III. of Anjou gave, in 1574, a grand reception at Cracow. The guests marched in stately procession past the throne to the sound of solemn music. This promenade became a part of court ceremonies and it is thought that the polonaise gradually developed from this and was used to open many Polish festivities.

Today, as a dance the polonaise is of little interest; it still consists of a procession, in which old and young take part, moving several times around the room in solemn order with no particular step. In Germany court balls are opened with this dance, and in some places it has been modified, robbed of its dignity, and used for the close of an evening of dancing and called Der Auskehr, the turn-out. The entire company arm themselves with household implements, march through the house singing in chorus "When the Grandfather takes the Grandmother," a rollicking old song. Although as a dance the polonaise dates back several centuries it was not until the early Eighteenth Century that examples of it in its present musical form began to appear. Since then it has been a favorite form with many instrumental composers and has even been used by vocal composers in parts of Italian operas. It is usually written in 3-4 time, is of march tempo, generally begins on the first beat of the measure and consists, as a rule, of two parts and a trio. Its rhythm is very marked, sometimes almost martial, and again it is so treated as to create a dreamy, rather melancholy composition. These characteristics are especially true of Chopin's polonaises in which he depicts the struggles, the court splendor, the triumphs of his country. In truth, Chopin gives life and spirit to the old polonaise form.

Italy has given two well-known dances, the saltarello and tarantella. The first is of Roman origin and the name tells something of the nature of the dance (saltare, to jump). It was danced by one or two persons, with a quick hopping step, time increasing as the dance proceeded. The music is written in 3-4 or 6-8 time, is generally in a minor key, notes are staccato, and the hopping step is apparent in the rhythm. In an idealized form the saltarello is found in symphonies and other instrumental classical works.

Mendelssohn in his Italian Symphony used in the finale both the saltarello and the tarantella. The tarantella is in 6-8 time and gradually increases in speed as the dancers continue, and the music corresponds with the hilarity and mirth of the performers. Song, castanets or tambourines are used to accompany it and you will find the melody even in the extended and elaborate dance form well defined and the rhythm, as marked by the instruments, a characteristic. Many modern composers use this dance very effectively in instrumental works. There is a tradition that the tarantella derived its name from the tarantula, the huge spider whose bite was supposed to be cured by dancing. However, this is a bit of fiction. The name undoubtedly came from Taranto, a city of southern Italy, where the dance may have originated. It is true, nevertheless, that the dance was used in the supposition that it cured a nervous disorder known by the name of tarantism which was prevalent for many years in southern Italy. When the epidemic was at its worst during the Sixteenth Century bands of strolling musicians went from town to town furnishing the dance music for those afflicted. If forgetting one's ills and tiring one physically is efficacious in the treatment of hysterical subjects, the tarantella as danced by the Italians even at the present time certainly should prove a cure. Although it begins mildly and gently enough, in a few minutes the two, four or more dancers seem to be entirely carried away with the music, and heads, arms, legs and body are used in the wild gestures, the stamping, clapping, bodily contortions, running, hopping and, when enthusiasm reaches its height, even the voices of the performers assist in the gaiety. Different forms of tarantism required different music and different steps for their cure, and so sprang up several slightly different tarantellas.

Among the modern society dances the waltz is one of the most important. The origins of many of the dances are rather obscure, but that of the waltz is perhaps the most difficult of all modern dances to determine. The name at least is German from waltzen, to turn, and the Germans have generally claimed it as one of their productions. They trace it back to the old Drehtanz or turning dance which was danced by couples standing face to face or holding one another by one hand only, much the same as was done in the old English country dances. The French claim it to have been evolved from the old volta which was invented in Provence and introduced into Paris under Louis VII., and that in the Sixteenth Century it was carried to Germany and the name then changed to Walzer. Then when they, the French, again revived it they used the German title with French spelling and called it valse. This sounds rather questionable in that the old volta was probably an Italian dance, at least one would so think from the Italian title. The generally accepted belief is that it came directly from the peasant dance known by different names in different places, and the one usually given as its ancestor is the Austrian and Tyrolese landerer. Under this name, or that of Schleifer, it is still danced at village festivals in Austria and Bavaria to the slow rhythms which Mozart, Beethoven and Schubert used in their waltzes.

About 1675 the now familiar "Ach du lieber Augustin" came into existence and it has been said this was the first tune to which the modern waltz was danced, and therefore it must have been an outgrowth of an older dance to be contemporary with the song. There is no proof of this and 1780 is the date usually given for the first appearance of the modern dance. It reached England in 1797, though it did not become popular enough to call forth the severe criticism with which it met until the early Nineteenth Century. In spite of the attacks made upon this "fiend of German birth," "destitute of grace, delicacy and propriety," and of Lord Byron's savage treatment of the subject in his poem called The Waltz, it continued to gain in favor and soon all dancing England became devotees to the wiles of the fascinating waltz. In musical form the waltz is entirely different from other dances and is not as capable of high development, but works of lasting charm have been written in waltz form.

In its early form and among the works of Mozart and Beethoven the waltz was of simple binary form, and seldom any modulation occurred or if so it was always into a nearly related key. Schubert enlarged this form, and the more modern waltzes are often ternary in form. It is always in 3-4 time, with but one accented note in a measure, the first; there is usually an introduction whose material may be in no way drawn from the waltz proper and not necessarily in waltz time, leading directly to the waltz or set of waltzes. There are four or five short numbered waltzes which are frequently repeated in the set, each as a rule consisting of two sixteen measure sentences or of three, in which case the third is a repetition of the first. These short waltzes follow one another, and while the bass and middle voices sustain the dance rhythm, the melody is unrestrained and affords great variety to the composition which closes with an elaborate coda or finale in waltz tempo, repeating in part some subjects already heard and often introducing a new theme.

Weber was one of the first composers to idealize the waltz form and bring it into the list of absolute musical forms, as is shown in his "Invitation to the Dance." Among the waltzes which followed in this idealized form the best will be found in the works of Chopin and Rubinstein. The Viennese composers excelled in the writing of waltz music for dancing. It was the elder Johann Strauss who first gave specific titles to waltzes and under the members of the Strauss family and Tabitzky and Gungl the form of dance waltz music we now have became fixed—that is the form described; a short introduction, several waltzes following, and a coda repeating parts of the best movements.

Other modern dances are largely based on a two measure step with an even number of measures in each phrase or period. This even number is necessary to conform with the steps of the dancer. Among them are the polka, written in two-part primary form, each part repeated and in 2-4 time: the galop, of same form but of quicker tempo which has but one beat to the measure, whereas the polka has two, and the galop may be composed in a three-part primary form: and the polka mazurka, usually in three-part primary form in quick 3-4 time, differing from the waltz in that the weak beats of the measure are usually accentuated.

The polka, in spite of its lack of real beauty, became popular wherever it was introduced. It was an invention of much later date than even the modern waltz and is supposed to be the creation of a peasant girl of Bohemia. A fellow countryman by the name of Neruda composed the music and it was originally known as the nimra, which name was taken from a song to which it was danced. It was in Prague that it received the name of polka which is supposed to be a description of the Czech pulka, meaning half, and given because of the short or half-steps used by the dancer. A regimental band carried the polka from Bohemia to Vienna in 1859, the next year Paris had adopted it and five years later it reached London, and for many years was in every dance program of many countries, our own included.

As the dance forms were developed from the dances so the march forms grew from march steps. The original march was designed to accompany regular steps and so was always written in duple or quadruple time, the rhythm strongly marked, and was constructed on the simple binary form, divided into two parts, each of which was repeated. When, as in the case of the minuet, one or more trios followed the march, the form became ternary or rondo. The military is the simplest form of march, written in common time and is two-part primary or binary in form. A more pretentious form is the festival march, an extension of the ternary, having a second trio added in 4-4 time. It consists of a series of subjects with usually no transitions between, the marked characteristic being a regular return to the first subject. The order is introduction, first subject, second subject or first trio, first subject, third subject or second trio, first subject and coda. The second and third subjects have trio relationship, the first subject usually being in the same key throughout or in a very closely related key. The time continues the same during the entire composition. The best known examples of the festival march are Mendelssohn's "Wedding March," from the "Midsummer Night's Dream," and Wagner's "Tannhäuser." The tempo of marches of course depends upon the nature of the composition; the funeral marches of Händel, Beethoven and Chopin are very slow, while the so-called quicksteps are very rapid, and others are moderately rapid or slow according to the use to which they are put, but in form they vary but little and in the majority of cases can be classed as simple binary or ternary.

Following the ternary form in importance is the rondo, a very old form, both the name and form being derived from the old French rondeau or round, meaning a returning, a coming around, the word signifying the general structure of a class of Sixteenth Century French songs, so arranged that the opening and closing two lines were the same. One of H. C. Bunner's verses perfectly illustrates the form:

A pitcher of mignonette
  In a tenement's highest casement;
Queer sort of flower-pot—yet
  That pitcher of mignonette
Is a garden in heaven set,
  To the little sick child in the basement—
The pitcher of mignonette
  In the tenement's highest casement.

The musical rondo very closely follows this literary form, and while the parts are distinct and easily recognizable they form one continuous, concrete whole, to quote a line from an old French rondeau it should be:

Wrought as a ring with no break in its roundness.

Here all the movements or parts are subservient to one principal theme called the first subject, found at the beginning of the rondo, always returning to this first subject, the style and key of which determines the character of the entire composition, and we will always rightfully expect in this form that there will be a return to the first subject and in elaboration of the form a reiteration of it throughout the composition.

The first rondo form is naturally the simplest and consists only of the first subject and the repetition of the first subject in the same key separated by a passage in a different key, technically known as a transition, digression, an episode or intermezzo, an Italian word derived from the Latin intermedius, meaning coming between, the same word being used for selections played between the acts in early Italian tragedies; it is also at the present time given to independent composition of the same general character, so that the word transition, signifying being in transit, gives perhaps the clearest, most unmistakable meaning.

The second rondo form consists of a first subject, a transition, a second subject, another transition, and a return to the first subject.

The third rondo form consists of the first subject, a transition, the second subject, a transition, the first subject, a transition, the third subject, a transition, and a return to the first subject. In this long form the intermediate subjects and transitions are condensed or shortened in order not to extend the bounds of the entire composition beyond a reasonable length. Some of those writers who used the term episode instead of transition make a distinction, that is, a rondo contains more than one episode, and the name intermezzo is applied to the passages, but it is impossible to find any reason for this distinction, as there is no difference in the form of the different connecting links between the subjects and many writers use the words episode or intermezzo interchangeably in connection with the rondo so that the word transition seems to be the most distinct and definite.

In all of the longer and many of the first rondo forms the composition was opened by an introduction and terminated by a coda, both of which may vary in length.

The culmination of the classical form is found in the sonata. The word is derived from a Latin word meaning "sound" and was first used in distinction to the toccata, a piece of execution merely. By all composers it has been the name applied to the best form of instrumental music of the time and as now used the name stands for a definite musical composition comprising two or more movements. Most commonly there are three of these parts, often five and occasionally even more. The sonata is a direct outgrowth of the old suite and came into existence, though not in its present classic form, with the perfection of the violin by the Italian instrument makers. The violin places so few restrictions upon the musician as there is so little mechanism between player and instrument, that when it was made so perfect as to respond to every mood of the musician, he began to experiment and to overcome, by skill in stopping and bowing, the mechanical difficulties which had before prevented him from obtaining the finest, purest tone and fluency of motion. The violin is a solo instrument and the contrapuntal devices which had been occupying the attention of composers were not fitted to this instrument and an effort was made to find a more suitable form which would depend upon the correct handling of melodic passages accompanied by simple harmonies, rather than interwoven melodies which depend upon themselves for accompaniment. As we have seen, the purely dance tunes had already been grouped and several woven into one composition, but now musicians felt the need of a more unified form, something that would admit of melodic expression, give an impression of definite tonality and retain the rhythmic vitality necessary to all instrumental music. They used the method of form adopted in the dance movements of the suites, but improved upon it by making more definite the subjects used, by elaborating the divisions, varying the key and making the parts balance each other more perfectly.

The sonata form in its present developed state consists of three principal parts. For the first theme no name has been agreed upon, the name exposition being perhaps the best one. It determines the whole character of the first movement and is indeed used in naming the sonata, as the composition is commonly recognized as being the sonata of the key of the first movement, unless there is conferred upon it a special name conveying an idea of its poetical meaning, such as Pastoral or Moonlight; occasionally the name of the man to whom it is dedicated distinguishes it. In giving the title to the grand division of the sonata form next following the exposition we are again confronted by a diversity of terms. Some American theorists call it the development; their English brothers, the free fantazie; while the translation of the German term is the working-out passage. As in other instances of conflicting terms, one is as correct as another, and here each of the terms really conveys a clear idea of what the division stands for: development and working out, because in this portion of the sonata the themes of the exposition are usually the basis from which the composer works toward the third division; free fantazie, because here he is free to exercise his genius in every possible way in displaying technical skill, imagination and passion. Like the development of the plot in a novel or drama the themes are here treated as characters and placed in all possible new relationships and entanglements which were in no wise suspected when the subjects were first introduced. The composer here uses his utmost fancy without becoming fantastic, and in this part in his power, grasp, contrivance and suggestion we find the work of the master. As always where great opportunity is given there is the possibility of failure, a weakness will be discovered here if anywhere in the sonata. The third part is a repetition of part one, a recapitulation and unifying of the whole.

The exposition is a development of the binary form before explained, each of the parts of the sonata form being somewhat modified from those of the three-part song form. The part corresponding to the first period is in the exposition known as the subject. This first subject as a rule comprises some phrase formation and often closes with a half-cadence, being very much like the antecedent phrase of a period. A second subject follows the first after a short transition which, in major keys, leads to and modulates generally into the dominant key, the usual key of the second subject, which is variable in length and has no definite form. This second theme is frequently lyrical in style and is therefore often called the song group; it comes to a close in the dominant key and is followed by a codetta varying in length according to the design of the composer. There is often a double bar with repetition marks at the end of the codetta and all of part one is again repeated. Now comes part two, the development or working-out passage. The motives of the first and second subjects are used and developed in this fugally, canonically by inversion or other devices, according to the genius and taste of the composer, and it leads up to the return of part one, which is entirely repeated; but now the second subject, instead of appearing as in part one, is given in the tonic, the entire movement closing in that key. This practically completes the sonata form, and no matter how many movements are added, how elaborate or simple the composition may be, the characteristics as here noted are always found as the basis of all sonatas.

The sonata of three movements has been chosen for description as it is the typical and most common form, and where there are more movements added they are all subservient to this type form, and by many of the best critics the added movements are regarded as interpolations which detract from the symmetry of the composition. The forms in the sonata usually have Italian titles given them, which indicate the tempo with which they are to be played, and sometimes something of their character. In the playing of a sonata the performer usually rests a few moments between each of the movements, these interruptions having a tendency to mislead the hearer into the belief that the sonata is a disjointed collection of unrelated sections, which is not entirely correct, and in order to do away with the danger of this misunderstanding, later composers have indicated that the sonata be played without interruption. The sonata, as we have noted, was evolved for a solo instrument, but may be written for two or more instruments. If the accompaniment be written for the orchestra this composition becomes a concerto; the trios, quartets and other pieces of chamber music of the classical period are in this form and the music for string quartets is by many authorities considered the most intellectual form of musical composition. In them so much is demanded of each instrument and the composer is so limited in material that every detail must be perfectly adjusted, and it is extremely difficult to balance the parts for the instruments to bring each equally into prominence without any one subordinating the others. The earliest developments of the sonata form were known as either the "sonata de chiesa" (church sonata), or the "sonata da camera" (chamber sonata). In the church sonata there were three or four movements quick and slow, one or more in fugato or other contrapuntal style, which were somewhat serious in character and derived from the old choral music; while the chamber sonata was secular in style and simply a grouping of dance movements which, as we have seen, constituted a suite. While the violin was brought into prominence at this stage, music was also being written for other bowed, and for wind instruments, such as the concerto da camera, which was really the precursor of the string quartet and the symphony. In it other instruments appeared in connection with the violin in accompanying or contrasting parts, not merely as a bass accompaniment to the solo sonata but by playing now in unison, now in rivalry with a group of instruments. From these three forms the modern sonata was evolved. Except for the polyphonic music, described in the previous chapters, all music of importance had depended upon words for understanding, but now works were produced in this new form which were complete, well balanced, perfectly adapted to instrumental performance and capable of appealing to the emotions through the intellect as less perfect forms had never done.

In all cycle forms, that is, works in which two or more movements are combined to form a homogeneous whole, the distribution of parts is very much the same. The composer realizes that in order to convey his meaning to you he must present his subject in many aspects, he must make you feel the wholeness of his work by making clear its many parts, and to make it ring true he must appeal to both emotional and intellectual sensibilities, in other words, it must abide by the laws of all art and make in every respect a perfectly balanced composition. First there must be something to call and hold for a moment the attention and prepare you in a measure for what is to follow; and then while the mind is ready the appeal to the intellect is at once made either by an elaborate, even heavy movement, or a slow, pathetic one, but is immediately followed by something piquant, at least a lighter and livelier movement appealing to the emotions; and then, that there may be no overabundance of the more frivolous vein, there comes as a contrast and a rest, a slow, serious part with, in the classic form, a final rounding out in the finale by a repetition of part one in the original key.

We follow this rather brief description of the all important sonata form by word pictures of four of Beethoven's well-known sonatas hoping they will aid the reader not only to more fully appreciate these splendid works, but through an understanding of them we trust he will have a clearer; more definite idea of what is meant by form or design in music.

SONATA PATHETIQUE, OP. 13 (BEETHOVEN).

This sonata is in a minor key (C minor), with a very slow, deliberate movement, of ten measures, "Grave," as Beethoven describes it. Its emotional feeling is of the deep, sorrowful kind, almost reminding one in its rhythm of some funeral march; from this the sonata presumably derived its title. Its form of course is only introductory to the first movement of the sonata proper, which begins after the introduction comes to a half close; and after pausing on the dominant of its key, with the last tone suspended, as it were, withholding the expectant blow, the wild, tumultuous onslaught of the first movement begins, a "Molto Allegro e con brio," very rapid, and with fire.

As before stated, this is a very rapid movement in C minor in double time (Alla breve in sonata form). Its first theme begins with a staccato upward flight of four measures and downward movement in full chords of the same number of measures, then all repeated, but closing with downward moving arpeggios, after which the same principal theme in two measure repetitions is used in modulatory ways to lead without episode to its second theme. Its accompaniment is throughout, with the exception of four measures in the middle, made up of its bass part in vibrato notes, that is, the octave in the left hand is repeated like a shake or trill.

Its second theme, in the major key of the third step of the scale, or E flat major, is divided into three parts or divisions; the first part a short theme of four notes, repeated an octave higher, its last note held the second time like a call, which also is repeated. This four measure phrase is repeated on the fourth tone of this key or its dominant. Then using this same short phrase the composer builds up a sprightly, flowery part of thirty-eight measures, after which he moves into the second part of this theme of twelve measures, a long note of nearly two measures repeated, then a sudden upward movement of the melody on the basis of the scale, with an orchestral chord vibrato as accompaniment, the bass moving downward and in contrary motion, producing a very effective climax. This is repeated, thereby coming to its third, or closing part, consisting of a running figure. After this as closing coda or codetta are added four measures of the first theme with modulatory chords to the working-out part.

Before plunging into this development Beethoven uses four measures of the first mood, plaintive, pathetic, harking back, then again its double time, but this time in an unusual key, E minor, the major third step of the scale. The same accompaniment is used as in its principal theme; the theme occurring in its upper part, then in the bass with the same accompaniment on top, then dropping to the lower regions of the instrument, with the vibrato accompaniment on an organ point, a weird four measure section, with a fraction of first theme of also four measures, both separated, closing with a running downward figure. This part, without even a suggested ritardando, comes to a close, and at the same time begins the return movement of the first theme. The second theme, this time, is not, as usual, in the original key, but in that of the fourth step, F minor, but its second part comes back to its right key, C minor, otherwise following its exact course, but at the end suddenly swerving aside with two crashing diminished chords, with a long wait on the last chord, again producing that first mentioned effect of impending crisis, then four measures of the introduction built on this same diminished chord-harmony, after which the coda, of twelve measures, crashes, as it were, thereby bringing this stormy movement to a full close.

The second part is an adagio cantabile, very slow and in the major key of the third below, or A flat major, four-four time, in singing style, a movement in the two-part binary form. A deeply felt and tender melody of eight measures with a simple accompaniment is its first theme. This is repeated with double accompaniment an octave higher, after which enters what is sometimes called its second theme, and is often defined as the second part or continuation of the first theme. However, it is so distinctly contrasting, more like a free fantasia-like figure on a violin, that it may be termed its second subject, although not referred to again. The first eight measure theme now occurs again, in the original key, A flat major, but the next two measures bring a new short theme in the same key in minor, A flat minor, which now with a new accompaniment in staccato triplets added, is used as a sort of working-out theme of fourteen measures with some very sudden modulatory changes and great climax, leading back to its first theme, but with changed accompaniment in broken triplets. The coda of eight measures is a sort of receding figure moving downward, coming to a very serene and quiet close.

The third movement of the sonata is a well defined rondo in allegro, of fast tempo, in key of C minor, also alla breve, or double time, the same as the first movement, in regular form. The arrangement being, first theme, second theme, recurring first theme and third theme, after which the first and third themes are repeated in the original key of C minor. Although this is indicated as a fast movement, and in double time, its character does not demand any such rapid tempo as the first movement, and amateurs often make the mistake of taking this at a too rapid pace, thereby destroying its simple beauty.

Its first theme is so closely connected with the second theme that to the uninitiated it appears as a continuation of the first, but its being distinctly in another key, the major key of the third step, E flat major, decides it as the first part of the second theme. Beethoven in the treatment of the second theme, like the first movement of this sonata, divides this theme into three parts or divisions, eight measures of theme, then a sort of variation on this part of theme, eight measures more, with added variation and closing modulations to the first theme. The first part of this theme is made up of short running up and down figures, the variation of triplets, while the second part is of simple chords, with the triplet variation again returning.

After the now recurring first theme in C minor, comes its third theme in the major key of the sixth step of its original key, or A flat major, a quiet, stately, withal simple theme, written somewhat in the working-out style of the first movement, treating it in contrapuntal style, both by inversion of the theme and its parts, and by adding a contrapuntal part, although more in a free style than the strict style of older writers. Its close is rather stormy, in the key of the fifth step or G major, the dominant of the last movement, on which chord it comes to a long pause. After the first movement, recurring now for the third time without episode or any other suggestion of change, reappears the second theme, but this time in the major key of the first step of this movement, C major. It follows the same divisions as before, except the last eight measures, which before were a variation in triplets, but this time are a sort of lingering, languid modulation back to the first theme, recurring for the fourth time in its entirety, and to its second half is added the triplet variation of the second theme, coming to a false close in A flat major, adding a short coda of only eight measures, the first four measures of which are an entirely new thought. Then it closes with the rapid downward scale run, by which the second theme closes the first time, modulating to its first theme, but this time ending in its own key, C minor.

"SONATA QUASI UNA FANTASIE," OP. NO. 2 (BEETHOVEN).

This is sometimes called the Moonlight Sonata. Its form, as its title suggests, is free, like a fantasie. The first movement of the regular sonata form, the opening allegro, is omitted entirely. Instead it begins with a slow, dreamy, song-like movement, in C sharp minor, four-four time, from which, imaginative minds have deduced its false title, Moonlight Sonata.

Beethoven in the superscription suggests the character of this movement, "With great sonority, delicacy, and without use of damper pedal." (This superscription is omitted in later editions.) This of course is not to be taken too literally with our very sensitive and sonorous grand pianos, but it is to be modified according to the condition of the instrument used for reproduction. The effect intended was the same as when an accompaniment played on a harp has no means of damping its tone prolongation.

The form of this first movement is the binary, two-part song form; an opening theme, on the first step, second theme, on the fifth step, recurring opening theme, and the same second theme, with closing coda. The movement begins with four measures of harp-like broken chords modulatory or introductory in character, after which the principal song-like first theme begins with its harp-like character of the accompaniment continued through this entire movement.

This song, as it is sometimes called, is carried on twenty-two measures, at which point a second division begins in the key of the fifth step, or G sharp minor. This is rather in the nature of a short phrase of three-quarter notes, introduced first in upper part then literally repeated one octave lower. Then again both measures, are repeated in imitation, four steps higher, leading to a passage of broken arpeggio-like chords in upward movement, continuing during four measures, then following downward, two measures, with distinct melodic underground, and closing modulation, of four more measures, and it returns to its first recurring theme in the original key. Now, Beethoven, instead of repeating the entire theme verbatim, as in the previously analyzed adagio, of op. 13, writes the closing thirteen measures also in the key of the first step, but this time in C sharp major, not as in exposition in the major key of the seventh step, B major. After this follows a short coda, of eight measures, using the first three rhythmic notes of the first theme in the bass, over which are placed two measures of the opening accompaniment, followed by the up and downward moving chord figures of the second theme.

The second movement of this sonata is an allegretto, in three-four time, sprightly in character, a sort of scherzo, more like the minuet of the older sonatas and still deeper in character than the movement from which it developed. Not as large as in the previous op. 27, No. 1, distinct in form and sharply outlined in thematic division. Its key relation to first movement is not regular, but only changed enharmonically from C sharp minor to D flat, but now in the major key. Its relation of parts is irregular and with the exception of the second section all parts are in key of the first step. Its form is classed under the ternary or three-part song form. Its first theme continues through sixteen measures in the key of D flat major, after which the continuation or second theme follows in the minor key of the sixth step of its scale, B flat minor, but after eight measures returns to its first theme, closing with full close in D flat major. The third theme, or division, is also in the key of its first step, D flat major, continuing eight measures, after which follows eight measures of modulation to the key of the fourth step, G flat major, and eight measures of closing in the first key.

Beethoven, as will have been observed, still being in the fantastic mood does not hold himself strictly down to the former laws, established by himself.

The third and last movement of this freely written sonata, a presto agitato (very free and agitated), in four-four time, is in the sonata form, the form used for the first movement, i. e., first theme, second theme, working-out part, and recurring of first and second theme, with coda. Its character, as its heading suggested, is agitated and stormy. It is described as a great emotional outbreak of the composer, also others describe it as a thunderstorm. Either description fits this wonderfully developed movement, and as the imagination of the listener is quickened by its sweeping arpeggios, and their closing chord crash, he thinks of one or the other. Its first theme begins with sweeping upward arpeggios, through three octaves, with a staccato accompaniment in bass ending with a twice repeated chord, producing the above-mentioned crash.

This two measure theme is repeated four times, closing with six measures more of a broken figure in the upper part and accompanying parallel part, not broken, in the lower part all on the organ point, of the fifth step, G sharp major.

After three more repetitions of the two measure phrase, this exposition of the first theme of twenty measures, without any episode, immediately begins in the key of G sharp minor, the fifth step of the first key. Its melody is song-like character, although the accompaniment reminds one of the turbulent undercurrent of feeling. The theme proper consists of two measures and two imitations of the last measure, making a four measure phrase, which in doubled octaves are repeated, adding four measures of slow half notes in melody, then a strong chord and running figure in the upper part, continued eight measures, leading to the second half of the second theme in the same key. This is a short, staccato-like, one measure phrase, repeated five tones higher. This two measure phrase is literally repeated, and two closing measures added. This six measure phrase is now doubled, above in octaves and full chords, with bass corresponding, the closing measures, reversed by breaking its figure up instead of downward, and doubling its number.

After these six measures of the second half of the second theme, the opening phrase of the first half of theme is used to form a modulatory episode, to return to the beginning of its first part, and, as was the custom, to repeat all this part already described.

The working-out part now begins in the key of first step, C sharp minor, consisting of the two measure phrase used in the beginning of the exposition, repeated three times, after which, the four opening measures of the second theme are brought into use, but now in the key of the fourth step, or F sharp minor. This part is treated contrapuntally, bringing the theme first above, then inverting this, bringing the theme below, and accompaniment above. After fourteen measures of this treatment a short imitative figure in the upper part, with a vibrato bass accompaniment of fifteen measures, receding and modulatory, with two long sustained chords, the last one pianissimo, brings this part to a close. After the non-recurring first, or exposition section, the second theme is repeated, but this time in the key of the first step or

C sharp minor. The entire second section is reproduced in regular order, but at the end are added two measures of vibrato chords and then, twice, the two measure phrase of the exposition theme, closing with two diminshed chords, swept through the entire keyboard with a long pause on either, making what is termed a false close. Beethoven now once more uses the four measure phrase of the second theme, treating it in the same manner, first, the theme above, then below, with the same kind of accompaniment, working into a climax of wide sweeping broken chords up and down the keyboard, in the upper part of eight measures, culminating in an upward chromatic scale run with a long trill on top and a receding downward cadenza, closing with two long sustained bass notes, the tempo being marked very slow for these two measures; some critics consider this already as the coda, but it seems more like a continuation of the former parts.

The short coda, of eleven measures, made up of a fragment of second theme of six measures, and three measures of imitative chord, figures of first theme, with two short chords added brings this beautiful sonata to its close, which, to some listeners, suggests a lover's story or a thunderstorm, just as their imagination or temperaments are attuned at the time.

WALDSTEIN SONATA, OP. 53 (BEETHOVEN).

Known under this title because of its being dedicated to Count von Waldstein. A noble sonata in C major in a large form of three movements, the second of these movements only to be excepted as to largeness, it being shorter than the other two, an intermezzo, but of the same depth and dignity.

Its first movement, Allegro con brio (rapid and with life), time four-four, opens with a distinct, characteristic theme of four measures. The first and second measure is a chord on the first step or C major, repeated staccato in eights, and only in the last quarter does this move upward one step, leading in the third measure to the end of this first thought, really a theme of but three actual tones with an ending of three notes like the ending of a reversed turn. The fourth measure as a sort of refrain enlarges these last three notes to five an octave higher, a short and pointed little grace note before a quarter, then in regular succession four rapid notes downward. Then a repetition of these four measures one whole step lower, in B flat major, after which these five notes downward, spoken of before, are repeated twice in successive measures, then without interruption are repeated up and down, almost like a five-finger exercise, and with a closing run downward of one octave, stop on C, continuing from this note downward in short staccato notes in the chord of C minor, the exposition or presenting of the opening theme, closing on a long note with pause on the fifth tone of its key or G. Now, as far as number of measures go, there are just thirteen of these, but the rhythmical balance is in no wise disturbed by this apparently uneven number of measures.

The first nine measures of the exposition are now repeated; but instead of a staccato or vibrato the imitation of the orchestra is now used and in the hands of a skilful performer is very beautiful. The continuing eight measures are an enlargement of the five notes spoken of and the last downward run repeated, up and down, with broken chord accompaniment, modulating to its third step, the key of E major, but before entering its new theme, episode like, introducing an upward movement of broken imitative octave staccato notes, diminishing in force and rapidity from the former rapid sixteenths to eighths, leading to its second theme on the third step of the scale in E major. This theme in half and eighth notes, song-like in melody on sustained chords, sweet and very connected as the composer requests, is only of four measures duration. By reducing its notes to the larger value the tempo appears to have slowed up considerably, but this is more apparent than real. The effect on the listener is almost of a slow chorale, the real theme is but four measures long, the second part a repetition of the first four measures one octave lower but with the fourth measure already beginning in triplets and leading to the variation of the same eight measures, the theme being in lower part and the triplet variation being in upper part. Then continues the second half of the second theme. At the first hearing this is usually so hidden in the triplets of broken chords that only students will find it, as on the printed page there is no indication of the intent of these chords; the sense of melody, however, will guide the musical student or listener to find it very soon.

After eight measures the figure is again quickened to sixteenths, and after quite a bit of this rapid figure work it comes to a climax on a trill of two measures in the same key of E major, but the momentum, as it were, is too great, and an afterthought, taken or based on the five notes mentioned in first theme of four measures, with a new closing figure in last measure is added. This is repeated literally an octave lower, after which this new closing figure is woven out into a sort of returning modulatory episode, leading back to the repetition of all this first part of the first movement. This customary repetition consisted of again playing both themes as described, but as this so lengthened the time of a performance it is beginning to be omitted as really being superfluous.

The working-out part begins on the fourth tone of its key or F major, using the first four measures of the first theme, but here Beethoven drops what most would think a most promising theme, discarding the last two measures. The already mentioned, five apparently unimportant closing notes of the opening theme are again introduced and from this material sixteen measures of the first part of a brilliant middle section are formed. The next thirty measures are formed from the second half of the second theme, making use of only its first four measures, building up this section in these triplets of broken chords, treating it first in contrapuntal style, then on underlying melodic lines, but outwardly, broken triplet chords, the dismay of many young pianists. All of this section is in key of C except the first four measures.

GIACOMA PUCCINI

Born at Lucca, Italy, in 1858, Puccini is the leading Italian composer of today and probably the greatest living opera writer. "Manon Lescaut," "La Boheme" and "La Tosca" met with great success but his "Madame Butterfly" has been presented all over the world and is by far the most popular.

In his music he combines the old and truly national characteristics of Italian opera with modern dramatic power and orchestral coloring and his mastery of the light lyric style makes him very popular today.

After reaching this point the modulations come to a stop on the organ point, G, and the return section of fourteen measures is built up, using a small fragmentary theme, inverted from the third measure of the first theme, accompanied by a continuous rolling figure in the bass, working up to a large climax and without stop dropping back to its first and opening theme and section. Instead of repeating this first theme and part as before, Beethoven introduces a surprise by a false modulation; instead of following its broken staccato chord downward to its logical conclusion, as the first time, he makes a false close on A flat instead of on G, then repeats this same chord, in D flat major, with the same false close on B flat.

After this digression, unusual at this stage, and a most glaring but nevertheless beautiful innovation, the remainder of the first theme is given in its regular order and key; but the last half is placed in a minor key leading through the broken staccato octaves in imitative upward scale movement, to its recurring second theme on the sixth step of the scale, A major. Only the eight measures of the chord-like theme, and its variation in the same number of measures, are now in this key, the second half being in the key of the sonata, C major, which is now carried out in exactly the same manner as before. After it reaches its climax at the double trill, it recedes with the same new thematic figure mentioned before, not as expected, returning to what would be its logical key, C major, but now introducing the theme of the exposition in D flat major, continuing with the same closing measure, short grace note before five downward notes, a sort of harkening back to the working-out part in all eleven measures, and modulating back to its original key. The forces set in motion cannot as yet come to a standstill, a new figure in syncopated notes of two measures, with staccato accompaniment of the first theme follows. Now the lower part has the last two measures of first theme while on top is a running figure, then the last measure is repeated, always one step higher, finally shortening the figure in both upper and lower parts until its climax is reached and after a cadenza-like receding part and two long held chords, the second choral theme is once more touched upon, lingering on its last chords, by three times repeating them, slower and slower, and pausing on the last one, Beethoven finally plunges for the last time into his first theme and with a showy run in contrary motion, brings this most brilliant movement to a very decided and dashing close.

Its second movement in key of F major, the fourth step of first key, can hardly be classed under any of the different forms, yet it is not entirely without its orderly procedure. A very slow movement in six-eight time headed "Introduction," (Introduzione) meaning an introduction to the coming rondo. In character dreamy, modulatory, its main theme being made of a small fragment with its repetition and closing chords. This, repeated, makes the first eight measures. Then begins the second half of this theme, eight measures more. If it were in a new key it would be classed as its second theme, but, beginning tonally like the first and in the same key, it can be hardly classified as second theme. It proceeds, unlike the first theme, as it adds a new figure, through eight measures, after the recurring first thought or theme of eight measures, and the same number of modulatory measures, halting, musically not finished or closed on its dominant: like a conductor with raised baton, surveying his orchestra, before giving his final signal to commence. The last long held note is, also without interruption or cessation, the beginning of the last movement.

The rondo in key of C in a moderately fast tempo (Allegretto moderato), two-four time, its first theme consisting of a simple melody of quarter notes, in a four measure phrase, repeated identically, followed by its imitation in the same manner on the dominant, producing a sixteen measure section with two measures added, by repetition of the end measures, but prolonging the last tone through four more measures by repetition. The accompaniment consists of rolling chords, which at the end of these twenty-two measures roll on upward and apparently take the lead. The effect is one of suspense and waiting, as these eight measures, of interwoven figure work, only fill in the pause preparatory to repeating this same theme in a larger manner. The theme is doubled in octaves, the accompaniment is the same for sixteen measures, then the above-mentioned repetition of the last note, through four measures, is changed to a trill, but the trill this time is continued through seven more measures, and imposed over this trill is the same theme. As an accompaniment, a scale run, two octaves upward and return downward, is added, twice, completing the treatment of this short four measure phrase worked out into an exposition of sixty-two measures. But this does not quite complete this voluminous section as an afterthought is added. On paper it appears as heavy broken chords, to the listener the same, but if correctly interpreted by a good performer it is a melody in half notes continued for eight measures more. Here this simple yet remarkably built up exposition ends on a short, song-like theme.

Its second theme, in a minor key of the sixth step of the scale, A minor, begins in unison, upper and lower parts alike, but broken into octave triplets. Again, as in the exposition, a four measure theme is made use of, repeated an octave higher. After this broken octave the triplets continue in the upper part and a continuation of the theme or lower part follows for four measures. These last four measures are now repeated in a variation form in lower part, then a two measure phrase, in the character of the beginning of the theme, followed by two measures of figure work. These four, apparently fragmentary measures, are identically repeated, after which this last two measure phrase is prolonged, repeated four measures more. Added after these twenty-eight measures is a simple continuation of five notes, again in unison, first only in octaves, then trebled, i. e., three octaves broad, but not broken, stately and quiet, leading now for the first time back to its recurring first theme, in its original key, forming a second section, a total of forty-four measures.

The first theme is now repeated in its entirety and without a second's hesitation plunges into its third theme, in the minor key of its first step, C minor. This, like the second theme, is introduced in unison, double staccato, broken octaves continued eight measures, then these eight measures are treated contrapuntally with the theme above, counterpoint below, then inverted, the theme below, counterpoint above. This treatment is continued, coming to a close on its keynote C in octaves in unison repeated four times, making a section of forty-four measures.

Now appears a new theme, which some class as a continuation, but it so radically differs that it can hardly be so considered. Its key, while near related, marks it as new, being the third step downward of the key the third theme is written in, or A flat major, and its character, broad, rich, mellow chords, classes it as opposite.

But whether continuation or new, Beethoven's flow of thought stops at no bounds, and as in the first movement, while appearing to break all form and established order, creates a new order. This theme, as all others before, is built of four measure groups, continuing in this wise for forty measures. Then appears, what is to the ear a lot of broken chord, figure work, but the underlying thought is the same chord ground work, only elaborated in the upper part, and usually mistaken for a useless prolongation. After thirty-four measures of this variation, and while this still continues, a hint, as it were, is given of the recurring first theme by three single notes repeated four times, in two measure groups; then instead of three notes these are reduced to two notes, a long and short one, then a single note, one in each measure, four times repeated, closing and adding a hint of the two rhythmical opening notes of the now impending first theme; and after wavering between one and two note repetitions this second half of the third theme of one hundred measures closes by modulating back to the first theme of the rondo, again in its first key of C major. This for the third time is repeated in its entirety, adding the eight measures of afterthought mentioned before, but this time Beethoven enlarges this eight measure theme and builds on a new colossal part of a stormy, wave-like character of thirty-five measures. Then with large, broad chords, gradually diminishing in force and duration, down to the softest pianissimo, with a long pause on the last chord, prepares for its coda.

Now follows in its original key, C major, a remarkable coda. Its tempo is marked "Prestissimo" (the most rapid possible). The time mark double time, alla breve. The opening theme of the rondo is used but contracted in its time values, two measures into one, four measures into two, thereby producing in tonal effect a new theme of two measure duration. After two repetitions and a variation of these four measures prolonged by its last rapid figure, twelve measures more, a slight episodal thought of eight measures is inserted, after which again the first theme and variation two measure phrases, fourteen measures, in all a part of thirty-eight measures, take prominence, leading to what reminds one of the second half of the third theme, the part in A flat major. The thematic contents are in the lower accompaniment, while the upper part is in broken chords, in triplets, but three notes to the (half measure) beat, producing the effect of six-four time or two groups of three in the measure. It comes to a close with the famous eight measure double octave glissando, first in the upper part, two octaves downward, then in the lower part, two octaves upward, both repeated twice, with its ending of a run in contrary motion from the middle outward, continuing with a trill in upper part eight measures, the lower part continuing this run back to the middle of the piano preparatory to return to first theme.

Now, Beethoven certainly must have had other instruments in his mind, as he divides the following thirty measure section into three distinct parts, or voices. The trill mentioned continues all through this part as the middle voice, the first, short contracted theme is used over or on top of this; the lower part plays a chord figure in triplets, in six-four to the measure. These three parts, with their counter rhythm, make a most beautiful, if difficult part, closing with an effective double trill.

From now on to the end, the closing section of thirty more measures, built on two measure phrases, on the organ point on first step, C, carries this brilliant and unusual or freely formed rondo and sonata to a charming close.

Beethoven's genius, ever on the search for new modes of expression, in this sonata transcended all former limits. While his thematic material, as always, is the most simple, yet in the elaboration of this material in this work he has overthrown all former rules.

By comparing the first movement, op. 53, of the Waldstein Sonata, with the Sonata Pathetique, the utter freedom of modulation, and placing of his first and second themes in keys heretofore unheard of, and making a false closing modulation in exposition themes, in adding a coda, the dimensions and magnitude of a complete part will be seen. In the rondo, the innovation of repeating the exposition on an enlarged or doubled scale after the third theme, introducing a new section with a distinct theme, which by courtesy is described by critics as a continuation of the third theme but feels like a fourth theme, the enlarging of the eight closing measures of second theme at the recurring part to a new part of large dimensions and last a coda of such magnitude, in three distinct, large sections, of one hundred and forty-eight measures, creates a feeling of almost reverence and awe. Beethoven makes of this almost fragmentary material a beautiful, bold, masterly written sonata of such large proportions that it approaches a symphony in size and importance.

SONATA APPASSIONATO, OP. 57 (BEETHOVEN).

A sonata in three movements. The first one, Assai Allegro, or very rapid; the second Andante con moto, slowly but with motion; third and last movement, Allegro ma non troppo, fast but not too much so.

The first movement in the key of F minor, twelve-eight time, four beats to the measure, begins with a theme built on the triad. Beginning with the fifth of this triad it moves, first downward to its keynote, then reverses and moves upward two octaves, closing in the third measure, on second half with a trill, and, as it were, its regular downward ending followed by another ending from above. These four measures constitute its first theme. They are repeated, in double unison on the fourth step of scale, or B flat minor, This time its last measure with trill and peculiar ending is repeated, followed by four single notes in the lower bass, like the imitation of the kettledrums in the orchestra. Both these last measures are repeated, two steps higher, prolonged one measure more by repetition of this refrain of drums, and rhythmically imitated in the higher notes, much retarded, then with a broken chord downward for two measures, comes to an abrupt close with two chords, the last one on the dominant or fifth step of its key.

This, the first half of this exposition, sixteen measures, is now repeated, but in full sonorous chords, after eight measures, the lower part repeats one single note persistently through all the twelve eights of the measure, for four measures, then this repetition is broken into groups of three by adding the chord beginning at each beat. Above is a continuation of the theme in long notes in receding modulations to what would be its second theme, in the key of third step or A flat major.

A new accompaniment is added, a full chord broken in triplets. Rhythmically this accompaniment is a figure of two-eights producing a cross rhythm of two against three. The theme is an inversion of the first theme, so critics are in doubt as to whether to classify it as second, or still as part of the first theme. This ends after ten measures, with three trills each one measure long, followed by a downward scale run of four measures in triplets, and now enters positively a new second theme, on the third step or A flat minor, of just four measures duration. It is exactly repeated, one octave higher; the last two notes of this theme are used as a basis for the prolonging of this four and eight measure phrase two measures more. Then follows the remaining afterthought, closing with the triad theme moving downward, and diminishing to a pianissimo. Here changing the key enharmonically, A flat minor to G sharp minor, the opening first theme is given in its entirety. Its closing measure and trill are used, in a sort of episodal way, to lead to the working-out part, which now begins on the seventh step of its scale, in E minor. Beethoven has in this movement added the innovation of not marking any repetition of the entire first half of the sonata, but proceeding immediately to develop the principal part.

Using only the two opening measures of the first theme in the bass and as an accompaniment above, a vibrato as produced by the strings on the orchestra, but only for two measures. Then the inversion of parts takes place, but the accompaniment is a figure of five notes to each beat of three-eight time. During ten measures this uneven rhythm continues, closing with the repetition of the last note, in triplets, producing in character the same sense of tensity already mentioned at close of the first theme. This part of the first theme is now worked out in the same manner as first described for the measures. Then fourteen measures with the heavy broken chords as before are added, with eleven measures, all built on a diminished seventh chord. This, the climax of this part, gradually recedes in power, with the three closing notes of the first theme used again in the same manner as kettledrums in the orchestra, answered in the upper part as by flutes. Continued three-four measures this triplet in the bass suddenly drops one half tone. Two measures of this single tone repetition follow, preparing as it were, for the re-entrance of the first theme, which now in its original key of F minor is reproduced exactly, but this time closing on the fifth tone of the scale, or on C, leading to the remaining ten measures of this section in F minor, but not as before in the major.

The second theme with its heavy triplet chord accompaniment now begins in the key of the first step or in F major, ending with its same long trills, one measure each, for three measures, and the closing downward run, leading to its second half in its minor key. Thenceforward for twenty measures this part is carried out as before, but before closing the second theme once more enters, but in a higher region of tone, making, what appeared before like a heavy chord accompaniment, now an airy and light section of eight measures. Then follows a closing section of the same nature as the closing part at the end of the working-out section, intended as an intense passionate climax, terminating but not with full close, with four measures of this same part as the closing measure of the opening theme, retarding and diminishing to a very slow adagio, repeating these first described three notes in a chord very slowly three times, then three crashing chords. The coda based on twenty-four measures begins on the first theme with triplet chord accompaniment in the first half, beginning softly and leading to the last half, all in full syncopated chords with great passion.

In the last four measures by giving the full opening theme with the string vibrating accompaniment, dying away to a pianissimo, this passionate movement, difficult both as to interpretation and execution, comes to its almost whispered close.

Its second movement, an Andante con moto (slow, but with some motion), in the major key of the third step downward, or D flat major, two-four time, Beethoven now, instead of the song form, uses the theme and variations. The theme is of a serene, lofty and deep felt beauty, rich and sonorous in tone quality, presented in two eight measure phrases. Each phrase, as was the custom of the day, is marked to be repeated, but concert pianists of today are beginning to omit these time prolonging repeats.

The first variation is syncopated. The theme in upper part being the same, with the bass following a half beat behind. In the second variation the upper part is varied by breaking the former chords into sixteenths over these fourteen sevenths, the harmonic feeling is also complete but the melody sense is retained, and by binding the third variation begins this same melody, partly syncopated and partly repeated. The accompaniment is doubled in time, from sixteenths to thirty-seconds, making it the most beautiful of the three variations with its limpid, flowing and running accompaniment. This is also inverted, the theme being laid into the lower part and this varied accompaniment placed in the upper part, in eight measure groups, closing the variation with a scale run downward, and repeating the first theme, once more in its original setting, modifying only slightly the pitch position of the closing measures. Its last chord instead of being a full close is a diminished chord, the instruction being that it be played very softly and brokenly and sustained to twice its time value. The same diminished chord is repeated, one octave higher, held the same length, but struck fortissimo (very loud), and without any more warning than this pausing on these two chords, the next movement is attacked.

This third movement in the key of the first step, or F minor, an Allegro, ma non tropo (rapid, but not too fast), in two-four time, in sonata form, the same as first movement, begins with the same diminished chord, but this time uttered through four measures in a trumpet-like manner. This is followed by a downward running figure, taken partly from the first theme, first in two measure phrases, then connected, then doubled by adding the lower part in unison.

After fifteen measures of this introductory section the first theme of the exposition begins, made up of two measure phrases. After eight measures these are identically repeated, but almost like a second theme another thought is added. This manner of working with two themes at the same time is followed continually from now on to the end.

After thirty measures this second thought is used as the main thought with accompanying figure of similar character as in first theme below. After fourteen measures of this treatment the first two measures of the thematic figure are again used, modulating to its secondary subject on the fifth step of its key or C minor. The separation is so indefinite, the connection with previous part so close, that it appears nearly as a continuation, but its key defines it as the second theme. Again, it is made up of short two measure phrases, repeated, then enlarged to six measures with running figure, containing above it another thought, all of this main thought being repeated two octaves lower while the upper part is varied twice by broken octaves and a running figure in two measure phrases. The remaining six measures being completed with broken octaves only, closed full in C minor, a sort of coda-like section is added, consisting in the first half of two measures of an imitation of the first theme, in the last half of two measures of chords in the upper part and the run is continued in lower part. This is built up into a section of sixteen measures, closing on a diminished seventh chord, first struck forcibly, then given the entire sweep of the keyboard, first up then down six measures, leading to the working-out part, in the key of the fourth step, or B flat minor. During the next twenty-four measures only the first theme is used, with rather a simple accompaniment.

At this juncture Beethoven introduces an entirely new four measure phrase in the same key, B flat minor, doubling this in its first repetition in octaves in the upper part. All eight measures are identically repeated in C major, closing fully in the key of the first step or F minor. Again, the first theme comes into command, treated in imitative fashion; after beginning in upper part the same theme follows leading to a climax of syncopated octaves.

Beethoven at once leaves this theme, a kind of receding modulatory part being interposed. Having come to a false close, with a sweep of upward broken chords, a group of these measures and one measure rest, all of which is repeated, the same figure is brought forward in two measure phrases, but in a steadily decreasing tempo, until only one note to each measure is used, then one to two measures, which is followed by four slow chords on a long continued bass note ending this thirty-six measure section. The now recurring exposition is treated exactly as the first time. Its second theme this time is placed in the major key of the sixth step, or D flat major, but at its close again returns to the minor preparatory to repeating all this working-out part. This, as other writers have said, must have been an oversight, as it overtaxes both pianist and hearer to have this most difficult part rehearsed again, as it were.

The coda now begins, presto (very rapid), with a new phrase of eight measures in chords, the first time in the key of the first step, F minor, then repeated in the key of the third step, A flat major. After this the first two measure phrase of the main theme is used in building a section of thirty-eight measures, bringing this difficult and passionate sonata to a very brilliant ending.

When the sonata is written for the entire orchestra it is called a symphony. This word is derived from the Italian "sinfonia," meaning "a consonance of sounds." As explained in another part of this chapter the name sinfonia was given during the early Seventeenth Century to the short instrumental prelude which preceded an opera, and as we can directly trace the symphony back to the sinfonia the overture is its predecessor. It was not until the middle of the Eighteenth Century that composers began to write separate sinfonia exclusively for concert purposes, and Haydn added to the old three movement overture a fourth, the minuet, and adapted for the first time the sonata form; in fact, he was the first to adapt the sonata form for orchestration. Beethoven elaborated and extended the symphony and used the scherzo in place of the minuet. The symphony consists of a brilliant allegro, introduced by a slow movement, followed by an adagio or andante, then a scherzo and its trio and the composition rounded out by a finale usually in allegro and was the first real movement. No stated order of movements, however, can be given as they vary with the ideas of the composers.

The varied instruments of the orchestra have given composers broader opportunities for producing new and elaborate effects than they could possibly command on a single instrument. The various divisions and individual instruments of the orchestra were used in varying the rhythm, in alternate handling of the melody and in numberless other ways, so that the composition for the orchestra has come to be the greatest opportunity and at the same time the supreme test of the modern composer.

The sonata form was that preferred by the great classic masters. It was produced "in the golden age of pure musical beauty," their era marked the change from the profound, almost mathematical, learning of the fugal or polyphonic school of the churchmen. Breaking away from this the classicists sought for greater simplicity, gradually establishing new metes and bounds until the present acceptance of the technical meaning of the term classical music is a distinct and logical arrangement of parts and a symmetry of form, which most nearly approaches correspondence with the accepted rules derived from the work of the great masters.

Aside from this narrow and somewhat exacting use of the word classic, as applied to music by composers and the majority of the critics, is another which has no regard for form and which is applied to all works, without consideration of their form, which have stood the test of time because of their peculiar and lasting appeal: with this understanding we may have fugal, symphonic, romantic and operatic forms which are classical because in them there are qualities sometimes illusive and impossible of analysis which have made them live. This also is the acceptance of the term in regard to literature, and this use of the word is borrowed from ancient Rome, where one man was rated in the third class and another in the fourth, the division being based upon his worldly possessions, but the man of the highest standing was spoken of and ranked as a classical, a man in a class apart. From this the works of the best authors came to be known as classics, hence the adoption of the name in musical criticism.

The term romantic is in the same way borrowed from literature. During the Middle Ages poets told their mythical tales, Christian legends, stories of fairies, of adventures of the crusaders and other heroes of chivalry in the old Romance language. These poems had been forgotten and neglected even by scholars and it was not until toward the close of the Eighteenth Century that they were again brought into notice by a group of German and French poets. They revived the spirit of medieval poetry by embodying it in their own works and as a group came to be called the Romantic School, which served to distinguish them from the writers who clung to the rules and models of classic antiquity. Very soon the term romantic was applied to music, and it characterized both the subjects of certain compositions and the manner in which they were treated. Today the term is especially applied to composers since Beethoven, among them Weber, Schubert, Schumann, Chopin and Liszt. They accepted the suggestions found in Beethoven's work for a larger field of musical expression and by their own original resources attained rich results. Musicians had been tending toward exact and formal treatment of music and we are grateful to the Romantic School for saving it when it was threatened with rules and restrictions that would have made it a dead formality. They gave it greater freedom of form, revived some of the finest works of the early composers, developed the capability and technique of various instruments and by their geinus added many splendid masterpieces to the treasures of music. Carl Maria von Weber is perhaps the greatest master of this school of music, and to him, the Romantic Opera, one of Germany's prides, owes its origin and highest development. The themes for these operas were derived from German, French, Norse, Spanish and Oriental tales and contain scenes and characters found in medieval and modern legends and folklore.

As can be readily understood, the strife between the romantic and classical tendencies began just as soon as any musical laws were established, although the application of these terms was not made until later. This is very strikingly exemplified by the rise of the Troubadours in the Middle Ages. To a considerable extent a social movement, it was crystallized in the absolute breaking away from all previous conditions in music. The church had been for centuries the conservator and protector of music which had gradually assumed a form that permitted it to express no emotions save those of religion and worship. The Troubadours developed songs of love, war and adventure, and went so far in their effort to express themselves that they even devised musical modes entirely new to their times and new instruments for their accompaniments. At the same time the Troubadours were working these innovations in the Latin countries the Meistersingers were doing the same in Germany, and there they gained such prominence and power that they eventually commanded the situation and established their rules and regulations, which in time came to be broken down in the same way that they had trampled on the musical conventions of those preceding them. This condition of things is admirably set out in Wagner's opera, the "Meistersingers," in which is made visual conditions confronting every innovator in music. The romanticist is ever the innovator, yearning for some new way to express his emotions in music. He refuses to be bound by the rules of the past, and comes into conflict with the classicist who is striving to make his productions agree with those rules. Under these conditions the innovator in the vast majority of cases comes off second best, as the critics who have gained their knowledge and position by a mastery and understanding of productions already in existence do not as a rule deal lightly with those who have the termerity to depart from the traditions of the past. Nor does the musical public, whose standards are already firmly, sometimes it seems immovably set, readily accept the new. From this it will be seen that the meaning of both terms is of necessity vague and cannot possibly be considered as fixed, for the tendency is for the romantic of today to become the classic of tomorrow, the first setting aside form to express emotion and the latter insisting that emotion must be subservient to form, and both working together for the improvement of the art. It is because of the constant warring between these two tendencies that the classical forms can be traced in all so-called romantic music, nothing yet produced having succeeded in entirely eliminating the earlier forms, and, to repeat what was said at the beginning of this chapter, form or plan of some kind is an absolute requirement of all art.

The symphonic poem is by many considered the most direct and logical outgrowth of the symphony and it is a form commonly used in orchestral compositions. There are three points of agreement in all symphonic poems, they are always programmatic, that is, the clew to the meaning which the composer intended to convey is given in a title or literary phrase which accompanies it; in this point they will be seen to resemble some of the sonatas to which the writers gave titles hinting at the mental attitude supposed to be induced by its performance. It was reduced in form to a single movement, and in this again there is a connection with some of the sonatas whose composers instructed that they be played without interruption, and in the symphonic poem the different movements of the sonata are traceable in changes in key, rhythm and tempo. The third requisite of this form is that the principal subject must admit of presentation in various moods, slow movements alternating with rapid passages and climaxes being followed by points of repose. In short, the foundation principle of unity and variety is just as necessary in the romantic forms as is the classical. It can readily be seen from this short analysis of the symphonic poem how gradual was the change from the purely classic form, and naturally enough, when we keep in mind the fact that the change was brought about by the longing of the individual for some new and unusual way for him to express his own emotions; the first change from the purely classic form was made by Beethoven in whose compositions theorists find the culmination of the classic and the beginning of the romantic, but all of whose productions now find a welcome place among classical programs.

Following the symphonic poem in order of least departure from the true sonata is the classical overture. The overture in sonata form consists of two or three themes differing in character, preceded by a short, slow introduction of pathetic nature, and after a development section there is a repetition of the principal subjects. It differs from the true sonata form in that here is no repetition of the entire exposition. This form is adhered to more or less strictly in the concert overtures and in the majority of operatic overtures not based on themes from the opera itself. The name, from the French ouverture, signifies "opening," and it was originally applied to an instrumental piece of one or more movements played at the opening of an opera or oratorio. The early instrumental introductions usually passed under the names sinfonia and toccata and not until the time of Lully — the Seventeenth Century — were there more than faint indications of the modern overture; in truth Lully may be considered the inventor of it in its present form. His overtures usually consisted of the slow introduction, a quicker movement in fugal style, and frequently one of the many dance forms then in use. We hear much of the French and the Italian operatic overture as though the difference between them were very marked, while in truth it lies only in the opening movement, the French beginning with the serious and the Italian with a quick, light introduction. As the overture further developed the name came to be applied to orchestral compositions intended merely for concert use and in this way is today most frequently used. A touch of the romantic sometimes enters into them and they bear titles that convey at once the intention of the composer to illustrate some poetical legendary subject, and again they depend upon their own artistic beauty for their appeal.

The old style of overture, which professed to actually introduce the listener to the drama, to give by snatches of motives and general outline a clue to the opera to follow, is rarely found today. When an instrumental introduction is used it is really a lengthened prelude which has an independent value and importance, though this name is but seldom used with operas, oratorios or cantatas. The classical overture is a complete, well-rounded musical composition and not merely a gathering together of the principal melodies in an opera which is much more properly called a medley or potpourri.

There are many forms whose titles explain in part at least the nature of the composition and we shall not here attempt to give a complete list but shall speak briefly of a few which have some marked characteristics and have lived through many changes.

Immediately preceding the sonata in matter of development was the fantasia, which was one of the first titles given to a composition intended expressly for instruments alone, which in turn, seems to have been an outgrowth of the madrigal, described in another chapter. As the name suggests, it is a free creation abiding by no strict laws of composition and hence having no definite form. At the present time we find many musical effusions called fantasias, and also compositions for orchestra, which are not long enough to claim the title of symphonic poem, or which lack the dignity of an overture. Not only do we find the composer using any amount of license in his fantasias but he seems today to have little regard for the title and applies the name to medleys of operatic or folk-songs of the potpourri type, to grotesque movements and in fact whenever his fantastic work can claim no other name.

Almost as indefinite is the title ballad. It originally meant a song accompanied by dancing and was derived from the Italian word Ballo, meaning a dance. Its musical form is quite as indefinite as is its poetical, and has varied with time and place and though the generally accepted meaning is a narrative poem composed for one voice with piano or orchestra accompaniment, the name is also employed for purely instrumental music, and today we have orchestral and instrumental solo ballads.

Among clasical piano pieces the nocturne has been a favorite form since Chopin's time, and though adhering to no set form it is like the other cycle forms of several movements and true to its name, "night piece," is always of a dreamy nature. It is written not only for solo instruments but for open-air bands and stringed orchestras. Not so long adhering to the significance of its name we have the serenade, which has developed into a decided form in no way connected with the original meaning.

The serenade was written largely for wind instruments, as they were suitable for open-air music, but as it became a favorite form for concert halls the compositions for stringed instruments gained ascendency. The serenade contains more movements than are usually found in the sonata or symphony and as a consequence they are not so fully developed and are lighter and less rigid in construction. Even some modern serenades do conform in part to the true nature of the piece as originally used and are simple, melodious and sensuous in expression throughout. The name was derived from the Italian Sera (evening song), and though now indiscriminately used for different kinds of music, was intended to be sung or played at night in the open air and the song was such as could be accompanied by an instrument which could be carried by the serenader.

The sonata, romantic and operatic forms have all been combined and each has been used with one of the others in search for new methods of expression. Conditions of any living, growing art are never at rest nor fixed and we can scarcely say where one form ends and another begins, but, to use our earlier illustration, while architecture varies with conditions, with countries and with individual taste there are some few types of structure that have stood the test of centuries and it is to them the architect consciously or unconsciously turns for the base of his work; so the student of musical form will find, in every developed composition the principles as here set forth, no matter how a title may mislead, and can make his own general classifications according to the more perfectly developed and typical forms. In every musical as in every artistic creation we analyze it by seeking for the elements which unite the many parts into a whole, and though the variety of parts may seem endless we always find they have some intimate relation, otherwise there could be no artistic unity.

APPRECIATION

The beginnings of all things are full of interest as is made evident by the amount of inquiry now devoted to the origin of human institutions and ideas, and of all the various forms of life. And surely most interesting of all, because embracing all, are the beginnings of the human mind, the first dim stages in the development of man's God-like reason. The affair of the psychologist or scientist is to explain the seemingly complex in terms of the simple, to trace back the first dim stages in the development of man's God-like reason. He makes a careful study of the early phases of mental life, and in so doing has found it possible to connect the individual life with the life of the race; and careful observation of the first years of the child have thrown much light on some of the gravest questions relating to man's nature. If one believes in the doctrine of evolution he views the unfolding of a human intelligence today as conditioned and prepared by long ages of human experience. The civilized individual is, in a sense, a memento, or condensed record of Nature's work of organizing or building up living, conscious structures. The psychology of the race and the psychology of the infant mind have obvious points of contact; the first years of the child indeed answer to the earliest known stages of human history. It is probable that inquiries into the beginnings of human culture, the origin of language, of primitive ideas, arts and institutions have derived much help from a close scrutiny of the events of childhood.

Because mind is universal we are enabled to study mind by observation, by introspection, and through the medium of ethnological and anthropological research. The historian's account, a mere record of facts, in itself, does not give us as true a picture of an historic epoch as does some symbolic representation, such as poetry, decoration, painting, sculpture, music, or romance. History fails to show the essentials, the typical facts, as for instance do Shakespeare's historical plays in which he gives us an account of the development and growth of the English nation from a mere dependency of France and Rome to a mighty nation with a national church and government. In the same way a novel may give us the true picture of a period by seizing upon the motives of the actors. The student in search of knowledge finds in the events of history more than their chronological succession and relation, he seeks for the cause or causes back of the great crises recorded, and then, above all, in order to understand the stage of mental and spiritual development of the race or people, he looks to their games, to their amusements, and to their records of self in products of art. When a people has left us any creation wherein feeling has predominated over intellect or will, we know they were, however rudely, making manifest an unrest and dissatisfaction with life as they found it and striving toward perfection; we see in the crudest productions the awakening of the God-like in man. As with the child, whose means are so limited, so with the early races of men, there is an effort to express the vague ideas in mind. Through the soul flit shadowy suggestions of the identity of all life—by play, through gesture, and later through language, he strives, in some simple way and by the means at his command, to recreate the little world which lies within him; it seems as though he were trying to get a survey of his experiences as a whole in order that he may be able to understand its nature and discriminate its permanent and essential from its accidental and vanishing elements. It is, in fact, a search for truth, and in the effort to separate the real from the unreal in which it is immeshed, to find himself by putting self into outward form, he is making one little stride toward the tie which will bind him, the creature, with God, the creator. The one created life is the same in all things. Dimly at first man realized there was a power higher than his own and he attempted to portray the infinite in finite form. The very foundation of all art lay in man's dissatisfaction with the material and imperfect. Through the help of the memorials which survive it would seem that primitive man had a real although dim and rudimentary appreciation of the beautiful. As soon as he, unconsciously perhaps, separated the essential from the superficial, as soon as the quality of objects was perceived as distinct from the quantity or bulk, the æsthetic side was noted. Primitive man, as is the infant, was so concerned with efforts of bodily maintenance that he had no great variety of feelings to express, but as soon as he had in a measure assured himself of sustenance and protection, he was concerned with something more than mere existence. With the dawn of intellect and emotional faculties came a desire to enter into life universal, and so arose in early man the play impulse and with it evolved the art impulse.

All art is but an outward expression of the inner man; from the crudest, simplest relics in stone, metal and wood to the loftiest ideals expressed in sculpture or on canvas in our present time, we have but a reflection of the thoughts and emotions of the creator.

That the first products were far from being beautiful is true, but they are important nevertheless in helping us to understand the times in which they were created, and in making possible the higher forms of art which we know gradually developed with the experience of the races. Art reflects the civilization in which it is produced. A low state of savagery or barbarism could give forth only savage or barbaric art. A high state of civilization will produce a civilized and high art. The child is at first satisfied with the crudest imitation of any familiar object, but as he grows in experience and observes more accurately he will demand something nearer perfection. He passes out of the state of wholeness or oneness as he finds details and finally reaches the point where, as a man, he wants life as a whole, truth in some form, to speak to him from a product of art; he seeks unity in diversity, and returns understandingly to his first power of seeing things in their entirety; and the art history of the race — has it not been quite the same? Whether we believe the art earliest to be expressed was that of music, including dance and song, or decoration, drawing in imitation, or what, it is true the beginnings were such as to satisfy today for a very brief time the mind of the infant. Then as the child in its many stages of development grows out of these vague ideas to something more definite, as he begins to find likenesses in seemingly unlike objects, so the race in each succeeding generation builded upon the knowledge gained, increased its own mental and spiritual outlook, felt more, and hence had more to express and larger means wherewith to do it. Nothing can so truly record the nature of the people or a country's civilization as its art, for as Ruskin says: "The acts of a nation may be triumphant by its good fortune; and its words mighty by the genius of a few of its children; but its art only by the general gifts and common sympathies of the race."

The most original form of representative art is probably not independent drawing or sculpture, but ornamentation, and undoubtedly bodily decoration was its earliest application. Not satisfied, however, with bodily ornamentation, the earliest tribes decorated their implements and weapons, and then followed the primitive works of free painting and sculpture, which had an independent significance, serving other purposes than that of decoration.

That there was little real artistic character in the lowest stage of ornamentation is generally conceded to be true, but as symbols, property marks or emblems their historic value was not slight, and their influence must have been felt on the social life of the times. The pictorial or representative arts of primitive tribes were quite naturally, with a few exceptions, a picturing of subjects taken from the usual round of experiences of the aborigines—figures of men, animals, birds, weapons and scenes in savage life. They had not formed any ideals, were merely striving for an understanding of the things they saw about them and recording their observations for various reasons. The carvings and drawings of these early tribes are usually classed among works of art, but there surely is some question as to their claim to this title, for it is by no means self-evident that the pictorial works can trace their origin to an æsthetic need. There are students who have decided that they have had their rise as the servant of religion, but although they may have had some religious significance no one has been able to discover the mysterious meanings of many of the earliest drawings. As long as all symbolic meaning remains hidden we have no right to suppose the figures are intended for anything else than that which they appear to be. Undoubtedly skill in carving, drawing and sculpturing was practised purely from a fondness for representing things. As we have before said, until feeling was aroused there could be nothing to express, so it sounds rather unreasonable to state that the earliest pictorial works were symbolic; rather, is it not reasonable to suppose that the play spirit was the forerunner of the art impulse, and as the child finds pleasure in the first lines he can direct simply because he feels his power in so doing, so the child race discovering its power rejoiced in it, and, with no deep meaning back of it, pictured what it saw about itself merely for the love of it. Then the doing of the deed awakened within it other desires and longings, opened the eyes to the world about, made it feel a higher, greater power than its own, made it a thinking being, and soon the greatest questions of life with which we today contend arose. With these longings came the use of the symbol, which is an indication of civilization.

At first, fact is seen only in its practical and useful sense, then with the dawn of reason comes the question, why, and the cause is sought. In seizing fact, everything depends upon how large a part of its entire compass is reached. As usually observed a fact is only a partial truth, a little glimpse of the true reality, it is a symbolic object of knowledge. Such a fact becomes truth only when it is seen in its scientific principle. Then we see the whole of which the fact is only a partial manifestation. We see with more than the animal senses and find the law of the fact, which remains the same under all circumstances. The fact itself may mean nothing to people in general, the law or principle unintelligible and uninteresting, but the symbol appeals to the emotions and intellect. It is midway between fact and principle and is a typical fact, so complete that it illustrates almost all the phases of the law or principle. Each bare fact gives some phases of the law but not all, and is, therefore, defective, but the typical fact should contain all phases. We do not suppose for a moment that the early tribes of men set about to reason out the use of symbols any more than we ascribe conscious action to the infant, but from the experience of ages, and study of the human mind, we are enabled to deduce certain facts concerning the development of the intellect. Man simply sought a means to express the divine within him, and the wonderful phenomena about him were all symbolic; he only used the means he had to represent the theoretical and moral truths. Is there not then more truth in the language of art, in poetic symbolism, than in bald statements of fact? The man who cries against the ideal in literature, in music, sculpture, or painting, the fairyland of child or grown-up, fails to see life in its wholeness, life universal, and is far from realizing his own greatness as man, a creature made in the likeness of God.

It is reasonable to suppose that, before these plastic and graphic arts developed, there must have been some bodily expression such as is found in primitive dances, though of these we have no records except as they are pictured, and this does not tell us the order of the development. The dance is of social importance in the history of civilization, for it meant a gathering together of people for either religious, warlike or festival occasions, and, as in the lower stage of civilization the dance is always associated with song, we are led from it to poetry.

It is difficult today to realize the social power which the dance once possessed. It was the most perfect and most efficient expression of the primitive æsthetic feeling. We all know the pleasure given both the performer and spectator by gymnastic and mimetic performances; there is, perhaps, no other ártistic act which excites all men as does the dance. We know that long before the child can express himself in language he can by bodily motion, not even yet developed into gesture, make evident his state of feelings. We know when he is particularly well pleased over anything he will give expression to his joy in the use of arms, legs and body. Most primitive dances gave vent outwardly to inner pleasure and were occasioned by any occurrence that excited the mobile feelings of the people. The mere exercise of muscle, however, would not answer the needs of expression of joy, and the æsthetic character of the dance is found in the order of the movements. Its most important property, that of rhythm, is one of the essentials of all art. The most primitive people maintain perfect time in their dances, and the motions of the dancers coincide exactly with the intonation of the music, so we find the first dances are regularly repeated steps, and the first decorations are regularly repeated units, the first poetry is metrical chants, and the first musical instruments are those which mark off or measure sound. What rhythm is to the arts, to ornament, and sound, proportion or visible rhythm is to architecture, sculpture and painting. This universal impulse of rhythm is one of the first to awaken in a race or child. Man is a rhythmic being, born into a rhythmic universe, and it would be strange indeed if he gave no early signs of this impulse. Motion always attracts, and in time brings about the question of power, the invisible power in nature which causes the trees, the planets, the waters, the entire universe to move in rhythmic swing.

"For Nature beats in perfect tune,
  And rounds with rhyme her every rune,
Whether she works in land or sea,
   Or hides underground her alchemy."

This rhythmic element is not then the product of culture alone, but is inherent in the emotional life itself, and all culture, all art, must contain this element. There is an Orphic saying which runs as follows: "The father of poetry is music, and the father of music is rhythm, and the father of rhythm is God." We might insert another phrase and say, the father of rhythm is life, and the father of life the Great Creator, for action is necessary to life, rest, absolute, means degeneracy or even death. Viewed in its broadest sense then, rhythm is the greatest underlying principle of all art, it is the life of all art as it is of nature. It hardly seems an exaggeration to say that the rhythmical is always the natural form of our movements, and as Spencer has said: "Every stronger emotional excitement tends to express itself in rhythmical movement of the body." Is it not largely because music best exemplifies this great law of motion, of movements in harmony, that we feel in a very deep and true sense it is the soul of all the arts? It seems to include all others, just as when we speak of the universe, we think of all the wonders of the heavens, of sky, and earth, and sea, of color, of line, of form, blending in one great harmony, held by one great law. Music seems not only the father of poetry but of painting, sculpturing and architecture. We borrow musical terms in trying to define phases of other arts. We speak of a scale of color and define architecture as frozen music. The very fact that its development has been slower than that of other arts seems to verify the statement that it is the soul of all arts, for its latent possibilities are so great it must take ages to develop or even recognize them all.

In an attempt to classify products of the human mind and hand as art, this question arises: What is the aim of art? Until that can in a measure be answered, at least to the satisfaction of the individual, there can be no definite classification made. Is beauty the sole aim of art, or is truth? Are beauty and truth synonymous, or may one exist independently of the other?

These questions have interested theorists for ages, and we are today but little closer to their solution. But it is not that we disagree so much in what we consider the essentials of art nor in our innate idea of the meaning of the terms used in connection with all art theory. It is that we fail to agree upon the language of art, the names of abstract qualities. Beauty in one mind contains all the attributes of art while to another it is but one element, and truth covers it with the many other elements. Goodness seems to one synonymous with truth and beauty, while the next to discourse upon the subject views all from a narrow moral aspect and declares beauty is in no manner a part of goodness.

To return to our thought of the symbol representing the typical fact, it would seem logical to say, that truth is the aim of art. Truth not as bare fact which, as before stated, does not contain all the phases of the law or principle back of the mere act, but truth which brings with it mental recognition of the principle.

It is impossible to formulate a theory that will explain all art upon one basis, for art is what its age and environment make it. We cannot make a set of laws nor standards and try all arts by them except in a very general way, for each product or age of products is separate and individual and must be judged by its own methods and ideas back of its conception.

The object of the artist should be to tell us in music, in the painted picture, or sculptured form, or in literature, the truths of life and the beauty and sublimity of life which we, with lack of genius, fail to grasp. We do not ask that he faithfully and in exact imitation represent scenes which are about us, we ask that he help us to see with more than the sensuous eye. In imitation it is true art had its beginning, but if it had so continued we would still be in the primitive, savage state of culture.

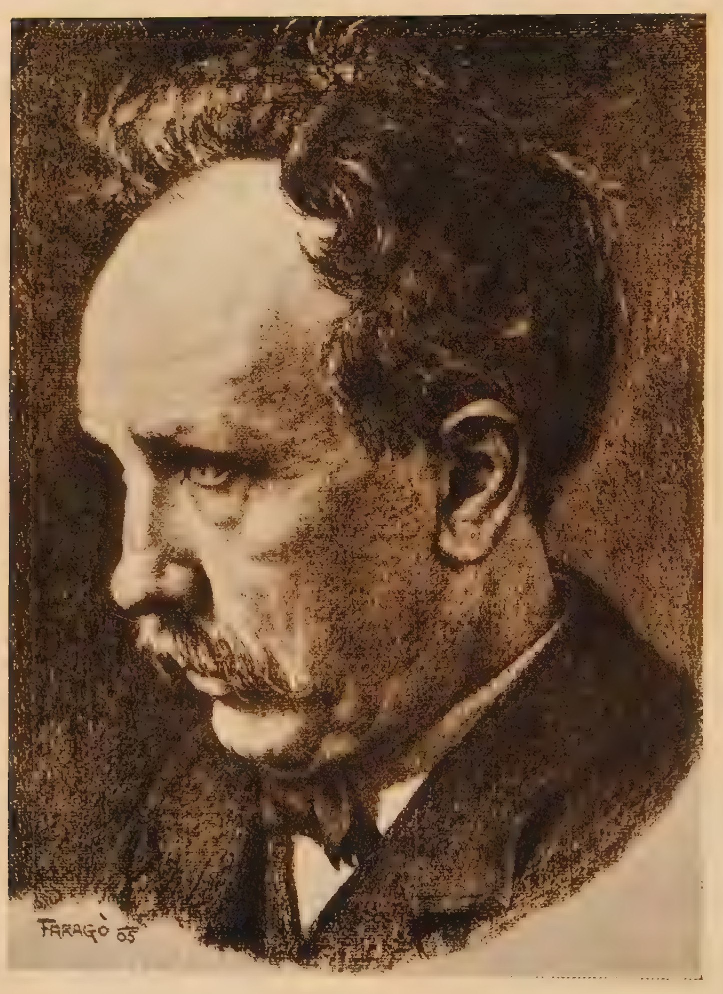
The child imitates long before he realizes even dimly his own power, but through imitation he finds himself, as it were, and in time knows he is a separate individual with capabilities not depending upon another. So through imitation the race passed to reason. The symbol appeared and man then began to rid himself of bare facts, of the reality of life, which in pictured languages possesses little interest for us. We do not read a book to hear of the daily routine of our lives unless the man as artist has found truths and beauties in the realities about us which we have never felt. It is because the genius is above and beyond us that his creations hold an interest and pleasure for us. Facts never make a work of art, they merely form the skeleton of the work, and this framework we commonly call technique. The knowledge of the laws of Nature is necessary to the artist, but unlike this knowledge to the scientist, it is not his aim, for he must try to show us the greatness of his conception rather than truthfulness to nature. Taking this view many a theorist claims that the object of art is to contribute to our pleasure, not to inculcate truth. Taine in his Philosophy of Art says: "The purpose of a picture is not to tell the truth, but to gratify the æsthetic sense." These theorists consider truth the aim of science, beauty the aim of art; and further say, that "art must accept truth as a condition and not offensively sin against it, but art must not be made to play the lackey to science nor be distorted from its proper purpose." No one who has given the subject any serious thought, will disagree with the above in substance; that realism alone is not art is generally conceded. A subject treated solely from the standpoint of the scientist with all the disagreeable and even disgusting details portrayed because they are facts and make the picture true to life as seen only with the physical eye, may attract and even fascinate, but this is the worst phase of realism and far from being art; but when we say truth is the aim of art, we mean truth which is really opposed to the doctrine of fact as seen by the great majority of men. We know that a production may be technically perfect and literally correct and yet if it ignore the spiritual element it fails as art.

The genius departs from the actual not alone to please us and feed our imagination but because the typical fact or symbol represents to us something higher. He does not take the fact and tear it to pieces for the purpose of showing us the anatomy of the structure, but rather he adds fact to fact, selects the real from the unreal, the eternal from the transient, calls out the very seed of the truth, and, because he is an artist, records for us what he with his deeper, more spiritual insight sees. When we, by means of his work look through his eyes, we see not merely detail, not just the line, the form, the color, the subject, not only bare fact, all is changed, we look below the surface to the soul of things. He stimulates our imagination and arouses our sympathies till we see the spirit that underlies the act, and the picture or sculpture becomes an embodiment of man's impulses, thoughts and deeds, and the more nearly the artist is in touch with the human pulse the more capable is he of discriminating between the truth and that which merely expresses a fleeting mood.

"Truth is an emotional or imaginative realization of fact." If we accept this definition, then surely we may say, truth is the aim of the artist. He makes nature and the facts of nature subservient to his will and to his artistic conception. It is at this point that theorists differ. The one says truth is a statement of facts, art the statement of ideas. True, and art then includes truth, but they argue that truth does not include art, and for proof return to the thought of imitation and realism. They agree that art is bound by certain laws, laws of society, of nature, of morality, and an artistic law, and that it must not ignore any one of these to the extent of misstatement, but that neither truth nor morality is its primary object, as neither of these objects is æsthetically pleasing. Beauty in them is the element the artist seeks.

If we accept this theory then art exists, whether in music, literature, or painting, for the promotion of intellectual and moral pleasure. This hardly seems a satisfactory explanation unless we understand by pleasure, happiness, unless appreciation of the beautiful leads to harmony in life. If this is not so, then are we not clearer when we say, that truth is the main fact and declare art to be devoted to the interpretation of life to man? The poem, the song, the picture, which arouses in man a conviction of his proper relation to his fellow man, to nature, to God, contains truth, universal truth, and through its harmonies, beauty.

Beauty is a quality or attribute, it appeals to the emotions through the intellect and is perceived by the senses. We shall not here enter into the old-time question of whether beauty exists only in the mind or in the external world or in both as we are only concerned with it as an element of art. The recognition of the beautiful is a matter of education and culture; the child for instance is pleased by a picture simply because it is pretty or agreeable, but fails to see any real beauty in it; is not capable of recognizing beauty, that is a matter of intellect, and through the intellect the emotions are touched, and upon how deeply and truly depends one's power of appreciation. This power is peculiar to man and raises him above the beast that has the physical eye and ear to see and to hear while all about him are objects, scenes and sounds, which he can sensuously see and hear as can man, but he lacks the intellect through which beauty makes its appeal to the emotions. This carries us back to our statement that there could be no art until the emotions were awakened through the intellect and the desire to express self was aroused. We see beauty and truth only in proportion to our intelligence. The poet, the artist, the musician, see it where we cannot, although it lies about us as it has


FARAGÒ 05

RICHARD STRAUSS

Born in Munich, June 11, 1864. Strauss is the most prominent figure in the musical world of today. He is the greatest master of orchestration who has ever lived. Strauss has written compositions which are the musical marvels of his generation. He is doing for the orchestra what fifty years ago Wagner did for opera.

about all peoples for centuries, but our intellects are not sensitive to it, perhaps because we have so long accepted it as the usual and do not even make the effort to see with open mind and heart.

That man who has within him a love for the beautiful, whether he beholds this in nature or in art, whether he creates things of beauty, or has merely the power to enjoy them; that man whose pulse quickens when he views the glories of the sunset, whose heart beats with pleasure in the songs of birds, whose lungs involuntarily expand to inhale the life force in the fresh winds that blow into his face, who takes keen joy in the distant snow cap of some lofty mountain peak beyond his home, that man has within him a divine spark which makes him akin to his Maker. Others then must reveal to us the emotions of the human heart which they have discovered and can express in symbolic and beautiful language, giving us not only what is really fact according to the materialist but their poetic conception of it. "The greatest thing a human soul ever does in this world is to see something and tell what it sees in a plain way" (Ruskin). And in his ability to interpret to the world the beauty he has revealed lies his claim to the name of artist; we do not admire the thing but the idea, the portrayal of the truth, as conceived by the man who created the picture, we seek the creator back of the created.

In the technical part of any composition we find the beautiful in language, in color, in line, form, proportion, rhythm, variety. There may be beauty in each detail, but back of all and embracing all there must be a conception of truth, else we admire it for the mechanical skill it exhibits and not because it is a living creation which appeals to the highest and best in us. Beauty is an attribute, truth is life, and embraces beauty. We are, of course, considering the superlative purpose of art, from these higher and nobler conceptions, to which only the greatest artists attain, the products, generally classed under art, descend to lower standards depending upon the ideas or thoughts expressed in them.

Before we leave this subject of truth in art, let it be clearly understood that we do not wish to give the impression that art to be art must always tell a story. The idea which makes any man create a product may tell a tale of joy, of struggle, of hope, of despair, of any human passion, and it may tell it in a literal but artistic manner, but again there are ideas not so tangible. There are thoughts and emotions which the artist describes by picturing the scene which aroused them in him. It is true that his exact thought may not be called forth in any one of us nor the emotion aroused quite the same in any two spectators, but we feel in viewing the work the power of the creator, and it awakens a sense of the divine in man. It is impossible for the majority of us to put in language the impression made upon us by some of the grandest conceptions of the artist. But if we possess the power to enjoy his conception we are second only to him who creates them for us. Ability to understand is one thing and ability to express is quite another; the artist lays claim to both. That poet or artist is greatest who best understands the principles of life and who can best reach the soul of man. Schiller tells us in his Song of the Bell that man's intelligence was given him that he might feel in his "innermost heart" what he is creating by his own hand.

We differ widely from one another in our use of terms to describe the qualities and essentials of the fine arts and in our reasonings as to the artistic appeal. No less do we differ in our view, in our judgment, of the beautiful and true. However, there is something fixed in regard to standards, there are some principles of judgment and sentiment common to all men, else no sufficient hold could be made on their reason and passions to maintain the ordinary correspondence of life.

It is difficult to define clearly and concisely so figurative a term as taste, which is quite frequently used synonymously with judgment, but there surely is a distinction between the two as the words themselves prove there should be. The relation between the physical and emotional is close, and man by his language has recognized the dependency of the inner or spiritual upon the external, through the medium of the senses, and has borrowed words with direct physical meaning and given them metaphorical significance. As with many a figurative word, that of taste is not absolutely accurate. The thing we understand by it is not a simple and determinate idea, and is therefore liable to be confused in the minds of most men. If we accept the narrower and probably more nearly exact significance of the term as derived from its physical meaning, we consider taste a faculty of receiving pleasure; an instinctive and intuitive choice or preferment of one material thing to another, which act does not obviously call into play the faculty of reason. It is the power of immediate discrimination.

Can there then be any good or bad taste, is there any great difference in the tastes of different individuals? The principle of taste, the manner in which men are affected, and the cause of affection are the same in and for different individuals, but the difference lies in the degree of the appeal. Some men are naturally more sensitive to the external beauty than others, through education or inheritance, and are in consequence quicker to perceive truth or beauty in a work of art or of nature, in its entirety, or in a single quality. Again, the close study of a particular object or class of objects is the cause of various degrees of taste, but the principle still remains the same. Any object which suggests pleasurable conceptions to the mind is pleasing, pretty or beautiful to that individual, and just so far as he alone is concerned his taste is correct. If he calls a thing beautiful and means simply that it gives to him pleasure by suggesting some emotion, by revealing to him some truth, then to him it is beautiful just as all other conceptions please those to whom they appear beautiful. When, however, he tries to set a standard by his own taste, when he insists because of a peculiar quality which to him is cause for considering the work or scene beautiful, that it should awake in others the same emotion, and, if it fails, that it is due to some defect or prejudice in them, he has attempted to do what no one individual can do, dictate what shall constitute true art.

Tastes are equally just and correct in so far as each individual speaks only of his own emotions, and what an individual feels to be beautiful is beautiful to him regardless of what others may decide. In answer to our own question then, we would say there is no good and bad taste, but from this we do not infer that all tastes are equally desirable. The faculty of taste is to afford delight, is to help us in choosing the helpful from the harmful by aiding us at once to distinguish the good from the bad without the necessity of long study or close and continual observation, and in this way assists in the cultivation of the finer, intellectual and spiritual being. While we cannot say a man's taste in the matter of the beautiful is bad as his view concerns only himself, we need not allow an uncultivated taste to hinder us in declaring what is truly greatest and best in art. Rather than good and bad let us use the terms much and little to describe degrees in taste. The man whose imagination has never been aroused or else has been improperly nourished, whose observations have been unorganized, and, hence, who is not sensitive and alive to the world about him, can discern beauty with difficulty, and often we regard his taste a peculiar one, as according to our standards his conceptions of beauty are peculiar.

The senses, the imagination and the judgment are the natural powers of man concerned with knowledge of the external world. The manner of perceiving external objects is quite the same in all men in so far as they are physically normal, so that objects present similar images to all mankind. We agree that what appears to be light to one eye appears as light to another. We agree upon what to the touch is rough or smooth, what to the taste is sweet or sour, what to the ear is harmony or discord. We have agreed to ascribe certain qualities to certain things; there is no dispute about sugar being sweet, or vinegar sour, or quinine bitter, and we concur in calling sweetness pleasant, and bitterness unpleasant. So far there is no disagreement in our sentiments, and we understand one another when we apply these terms in a metaphorical sense to objects, persons or emotions. We do know, however, that a natural taste may be perverted or cultivated until the sour or bitter may be agreeable to the individual, but this in no way interferes with our speaking definitely concerning taste, for though sensible to the fact that the particular food is bitter or sour, it is habit which has made them agreeable to the palate. So we see that no one can positively know what pleasure or pain a particular individual may find from the taste of some particular thing, but we may argue concerning the things which are naturally pleasing or disagreeable to this sense.

Wherein, then, lies the degree of taste, why does one man at once select the finest creations, as agreed upon by critics, from the lesser ones, why does he see beauty when another fails to see it? Is it not because he possesses greater mental creative power? The sensations he receives through the senses are primarily the same as with all men, but to him they represent images in proper order or relation, or he at once combines them in a new manner according to a different order. Imagination is the faculty capable of doing this, and since it is the representation of the senses, and can be pleased or displeased with the objects as imaged, and just in proportion as sense is pleased or displeased with the material thing, so do the imaginations of men agree or differ according to their senses.

Without going into the fine distinctions and stopping at this point to discuss just how far our statement holds true with all arts, we may in general say, that art is in a way imitation, (not literal imitation, for, as we have stated before, realism is not art,) and that a pleasure is perceived by the imagination from the resemblance which the imitation has to the original. Judgment deals with differences, but imagination with likenesses. Pleasure is derived in a far greater degree in tracing likenesses than in finding differences, because by making resemblances we are uniting qualities, we are making new images, enlarging our store of mental food, we are creating, whereas the task of making distinctions does not afford such play to the imagination and is more severe so that what pleasure we do derive from it is of an indirect nature. So far, men are about equal in the matter of sense perception and of resemblances pleasing the imagination, but differ in their knowledge of the things represented, and from this difference in knowledge the difference in taste arises. When we first view a work of art or one so called, if it is something entirely new to us, that is, a new conception or a new manner of presentation, we at once see its resemblance to something we do know, but fail to find its defects in matter of imitation unless they are very glaring. In quite the same manner the uneducated man sees a resemblance however faulty and is pleased; if, however, he later sees a finer representation of the same subject, the defects of the first become evident and cannot again make the same appeal to him. He is still admiring the likeness to truth but has grown in knowledge, and only the finer conception of it pleases him.

Our mistakes in judgment come from a lack of knowledge of art, from failure to avail ourselves of the privileges about us to study the masterpieces, and from a want of knowledge of nature and of man. Our theory is then, that critical taste does not depend upon the superior principle in men but upon their larger knowledge of life. Taste, natural taste, is common to all, but taste in the sense of a faculty that embraces both imagination and judgment is a quality with which human nature is sparingly gifted. It means a perfect blending of imagination and judgment, and but few possess this talent in any great degree. We all have the seed of taste in our mind, and as imagination can be cultivated and knowledge gained, there is every reason why we should strive toward its highest consummation and though we may never hope to reach it, we will in the effort acquire at least some degree of taste as we are now considering the term. Perhaps, the best rule that can be given one is to avoid all that is not good; if you feel your own judgment faulty accept that of men whose taste or judgment is acknowledged good, and give your time to the study of the really great creations rather than waste it in an attempt to select the worthy from the unworthy. When you have learned to find the true and beautiful, you will recognize it in all things where it exists and you will then waste no time in your selection of what is good, for a cultivated taste tells you at once. This is, of course, contrary to the thought of the realists, who would have you first decide that every detail was perfect, whereas the finer taste ignores the detail except as it is perfect for the sake of the perfection of the whole, the perfection necessary to the beautiful.

If we accept the theory that art has another mission than that of giving pleasure through means of the beautiful, if we believe it should further the understanding of man by bringing him into closer and truer relation with his fellow men, then its mission is a social one and the theory of art for art's sake a false one. That there have been and are semi-artistic creations produced purely for the relief and satisfaction of the artist we do not doubt. We found it in the drawings and carvings of aborigines and we find it today in the work of the child whose representation though not finished is always full of expression and is usually recognizable. The things, the details of things which impress him, he pictures, often ignoring the, to us grown-ups, chief characteristics. He is simply obeying genuine impulses, so that his art forms really spring out of the deep grounds of his emotion.

Every strong impression man receives by means of the senses from the external world excites in him physical and mental processes which we call emotion or passion, and which demand to be liberated in one form or another. The primitive man or the child may give vent to his joy, sorrow, or anger by physical expression, and is satisfied, his emotion has spent itself and he again becomes physically and mentally normal. The man sensitive to his external surroundings, the emotional and intellectual man, feels all more acutely, the passion aroused in him is more violent and his emotions deeper and more lasting. His whole being is possessed, and will only be satisfied when he has put forth in some outward form a part of all he has received; and if his emotions be of the higher order they will find an outlet in some artistic creation, which, therefore, is the solution of an overpowering emotion. In this case we have art produced merely fulfilling a subjective mission, art which aims at no other goal than to relieve a mind of a compelling idea, but as the child or the race advances with civilization the artist becomes conscious of keener insight into the meaning of external things and of his greater ability to make his ideas manifest in more convincing ways than can the average man.

He is, it is true, seeking self-satisfaction quite as does the more primitive man; in theory at least he is still inspired by impulse, but he has in mind the public, the vast audience to whom he is to speak through his creation. Uncontrollable inspiration is not his guide, though it may at first have led him into the paths of artistic creation. The man who by his work appeals to the emotions through the intellect of his spectators, is the intellectual artist; deep impressions, strong emotions are his, inspiration and impulse, but if he would make an appeal to the people he must also have a knowledge not alone of Nature and her laws but of man, and of the oneness of all life; he works not for himself but society. Viewing the mission of art in this way art becomes in the best sense utilitarian. By æsthetic means it fills an æsthetic need, but furthermore leads us to the great truths of life, inviting all mankind, as it speaks an universal language. Haydn spoke not only for himself but for all artists when, urged by Mozart to remain away from London as he knew not one word of English, he replied that his language, meaning his music, was a language all men understood and that by means of it he could speak to the people of any country.

Here then we find our test of art, of the greatest, highest artistic creations. The average individual may lack imagination, his taste may be perfected or uncultivated, his judgment faulty and his knowledge of things, of emotions, of laws, scant, to him we will not turn for criticism, him we will not ask for an opinion. Rather let us turn to the greatest men of all ages, the men who have been least bound by the artificial customs and habits of thought, who have cast aside or ignored the trivial, who have, in spite of and with the help of the material, risen to a higher intellectual and spiritual plane. There is art which belongs only to certain peoples or certain ages, which had its mission in helping to clear away some hazy impressions, and as a means to something greater belongs in the category of art, for it possessed some element of truth, some lesser truth which merges into and becomes a part of a greater one as man begins to see the likeness in all things. There are products, lyric poems, charming statuettes, dainty bits of music, pleasing pictures, which will always hold interest for their grace of movement, their elegance of form, their charm of color, and they may tell the joys or sorrows of a single individual, but they are not to be compared with the splendid creations prompted by some national, religious, universal belief or emotion whose grandeur lives through ages.

We seek then truth or life in highest art; a poem may have a strong appeal to one country and at one particular time it may rouse a nation to action, but unless it portrays some emotion common to all mankind, unless it pictures some wrong, some joy, some triumph which is an universal one, it cannot hope to live through centuries, and on its merit, however great, its author will never become one of our world poets. It is he with the largest view of life, the man untrammeled by his environment, who is as nearly as possible self-environed even though it may be for the time only, who creates for us that which, because of its truth, will live forever.

History shows us how art has been bound down and kept from reaching its great mission by religion and by monarchy. The artist was obliged to create for his king or ruler, his church, and his art suggested to the people all that was favorable to its dictators. Not until we come to a free people do we find art other than traditional, nor the joys and sorrows of the humbler class used as subjects of art. When kings dictated, art represented the splendor of court life, it preached the fear of God, submission to the king and state, and respect for nobles and officials; the mass of people could not find themselves nor their human emotions in this art. When, however, it obeyed, as in the Netherlands, the demands of a free people, it swung far from court scenes, and the low, gross joys, common passions of the humbler classes were satisfied; but this was the turning point, the beginning of greater things.

As we have before said, the age of civilization and art go hand in hand, a general revolution has its spiritual and economical influence on the productions of its time, and the circle of art critics widens. Today the artist must please not a few people, not a single ruler, or even a government, not a church or the leaders of a church, but his work passes before society at large to be branded as worthy or unworthy of the name of art. As the artist is today freer to work out his conceptions, so the critics have greater opportunities for purely æsthetic appreciation; they are not narrowed in their views by any mechanism of state or church, nor intimidated by artificial grandeur or magnificence; they are not looking for any direct personal advantage or for their own glorification as were patrons and critics of old. The artist is freer to give more, and society demands more. It asks to find itself in art and asks that it be ennobled, a likeness, but a beautiful one, that it may be raised in its own sight and taught to respect itself, an art wide enough to admit the whole of mankind, "a gift of the people to the people, a thing which everybody can understand, and every one surround with love, a part of every life and a hindrance to none."

History has told us the story of music, and of the legendary and mythical lore which surrounds the birth of this art. Philosophers and scientists have attempted to solve the elusive mystery surrounding it, and in all the older theories and traditions we find a suggestion of divinity. It was regarded as a gift from some great god who not only created it but was its guardian, and in the literature of all countries are poetic fancies concerning music and its origin. Man has always felt it to be a part of himself and hence its origin divine as his own. Based on the modulations of the human voice and the movement of human muscles caused by the many spiritual and emotional sensations, the needs and hopes of humanity, it has grown with human growth and developed into civilization. Having no actual model in nature, being neither a repetition of an experience nor an imitation of a real object, it stands unique and supreme among the arts, it speaks directly to the souls of men without the medium of any tangible material.

The tendency to express feelings by means of sound is universal; it is common to all living creatures. The wolf or dog that gives vent to short sharp barks or prolonged howls is actuated by an impulse similar to that of the child who by its cooing or crying expresses its emotions. We know the power sound has to excite human beings, how a mob may be led to violent acts by the emotional tones of its leader though not a word of all he says is understood, and how an orator depends largely for his effect upon his skill in handling his voice. But to make a sympathetic appeal to an intelligent audience, the man, the fulness of whose own emotions compels an utterance, must necessarily use forms of expression that are unmistakably intelligible.

Music consists of a great mass of tones, that is its crude material and within it lies the possibility of its being molded into form. As stated in a previous chapter, music cannot exist without some kind of design; there must be a definiteness about each phrase or only vague, fleeting and useless impressions are produced. In early music we find only rhythmic sounds, but they were well defined though there was no variety afforded by a change of pitch, or, there were sounds varying in pitch but lacking regular marking of time. Other arts were fairly well developed and man had reached a high degree of intellectuality before the many attempts at making a well-balanced succession of sounds finally culminated in our modern scales. From development of rhythm and pitch, as the early musician knew them finally came a combining of the two and the melody was produced.

The systematic and scientific study of the origin and mission of music has been of rather recent date, and even in the past century there were writers who attempted to prove that it was purely an invention, and drew its material from the voices of the creatures, beasts and birds, and one theorist even went so far as to attempt to prove that the duck had furnished the model for the oboe and clarinet, the rooster for the trumpet, that melodies were taken from the song birds, from the rippling waters and sighing trees. His view of life was a superficial one, and the primitive man was nearer the truth when he ascribed it to a special god; it is a part of the whole great scheme of the universe of man, and it was a creation which has always been with us, a part of us, but because its foundations are so deeply rooted in the very soul of man, because there has been so much else more tangible, other means of expressing the divine in him easier to formulate and understand, its progress has been a slow one. So many possibilities lie within the bounds of music that it has taken man ages to develop them, and without doubt future ages will find its power even greater, will understand better its relation to the infinite, will with a greater, wider understanding of the art, man and nature, be able to express more than we have yet done through it, as a medium of expression. It develops, as we have said, with the race and the individual, as the vocabulary of primitive peoples are limited, so the notes of their music, and they use gesture and modulation of voice to supplement them. As the mind and heart become capable of deeper emotions, as man becomes intellectually more complex, he requires better means of expression, and as he has grown out of the superstitious beliefs connected with the power of music, he has made possible an understanding of the art as a thing of law and order which through its beauty and truthful expression appeals to the intellect of the average man. With the freedom of thought and freedom of expression of the present day, with civilization spread so widely over the earth, music should exert a greater influence than any other one art. Sculpture and painting appeal to a comparatively small number, for only so far as their works are individually accessible can they wield an influence. When copied, though of value, they lose much of their original power. Literature depends upon an understanding of the language in which it is written, and it like a statue or picture often loses some element in a translation. The classic quality of music on the other hand is not hurt by repetition. The same opera, sonata, the same symphony, the same fugue, may be heard in many lands at the same moment without loss of original power or spontaneous quality. The famous Greek statues can only be seen each in a particular art museum and casts serve only as valuable references. The individual must travel the world over to see the greatest works of painting, of sculpture or of architecture, but in his own home, or with his fellow townsmen in a concert hall, he may come under the influence of the great masters: Beethoven, Mozart, Haydn, Bach or Wagner, whether he live in England, in Germany, France or America. It has possibilities of influence which cannot be claimed for architecture, painting or sculpture in so far as it may be considered an ideal expression of that which is best and truest in human nature. Because music most universally appeals to the mass of people even before there has been any special educational training, it is the most universally refining of all art.

We know that the music of the people, the folk-songs and ballads and dances, have always been recognized as important factors in culture and are of really classic value. Some of our greatest compositions have been based upon themes drawn from these simple sources, the Scotch ballads, the German Lied and Hungarian dances, have found their place in operas and symphonies, which fact goes far in proving the universality and power for good influence of the art of music.

There is music which simply pleases the ear as a pretty picture may please the eye, and like books which entertain us for a few hours and have no higher purpose, no ennobling results, however such creations have their place in a workaday world, and of such we shall speak in another chapter.

There is music of lofty purpose; by portraying the noblest passions of human life, or by showing its sordidness, gloom and sorrow, stirs the heart and gives rise to the desire for a freer, better life. It arouses a truer sympathy of mankind, a feeling of closer kinship. Its mission, then, like that of all other arts, is a social one, the uniting of mankind.

Again we repeat that the right appeal to the emotions, the appeal which can hope for any good result, is made through the intellect, and in so far as all men are equal, that is, that all men possess like mental faculties, there is every reason to say that all men can by proper training and mental effort have an understanding of the masterpieces of musical composition which may now be unintelligible to them. They may now appeal to certain emotions, the list may have some vague understanding of the composer's thought without any real knowledge of the design of the various movements or of why certain harmonies, certain tones, produce different effects. If he can with a little effort and observation increase his knowledge and thereby increase his mental and spiritual understanding, and can live for the time in a world of harmony, can more completely than perhaps in any other way be lifted from the material physical world to that of soul or spirit by thinking in the language of the musician, such thoughts as the greatest minds of ages have thought, then surely no mental energy, no time put upon the study of music, can ever be called wasted.

When one is going to journey in a foreign land he usually wants first to know something of what he may expect to find, he will spend weeks in reading the history of the land, he will discover in print many chief points of interest, have some knowledge of the people and if possible their language. Not that he does not in a general way know human life, but this particular phase of it, this expression of it, he wants to come in sympathy with that he may realize to its fullest extent the benefit of such a visit.

How many of us make an equal effort to understand the truths of life as given us by the greatest of mankind? Either our conceit is large and because music is so universal a language, we feel we are capable of understanding the language of the genius, or we are indolent and do not realize the benefit to be derived, or we are ignorant of the fact that it is possible for us to improve our taste until we want only the greatest the earth and the mind of man have to offer us. Pleasure, that is real pleasure, which leads to happiness, like everything else worth attaining, must be sought; the art of no longer a nation but a whole world belongs to each and every one of us, and as we have shown, the greatest and best in music is ours if we will but try to understand it, and once attained, no power on earth can take it from us. It is one of the greatest possessions of man, for it helps him in the effort all mankind is making to become a free being by making the physical and material the servant of mind and soul. The purpose of this present chapter is to help the untaught lover of the art to a higher and fuller conception of musical expression.

For ages past, poetry and painting have always been treated as distinct marks of great minds; the creator, poet or artist, has always been recognized as a genius, his position in the community one of honor and often envy; and no one has presumed to criticise the works of either, who did not himself know either through innate taste or through education the difference between a ballad and a sonnet, or who could not by looking at a picture tell whether it pleased his eye for the moment only or would stand the test of time. This same reverence and respect have not always been accorded to music. Only within comparatively recent time has music attained her proper place in the fine arts, and we have come to regard her, not as a mere expression of some momentary mood or fantasy intended only to please the ear, but we know now, and masters have long known, that music is as much an expression of man's soul and of universal truth, and holds a place as great and lasting as does Raphael's Sistine Madonna, or Homer's Iliad.

Simple melodies, easily caught by the ear and held by the memory, have always been popular and eagerly seized upon, and a child could enjoy them. But only after study does the complexity of a Mozart sonata present tone pictures to the mind, or do the varying answers in a fugue mean to the untaught anything more than a medley of intricate musical phrases. Music is as much an expression of pent-up human passions as are any of the other fine arts, but, fortunately, nearly all good music requires some sort of education to understand it. This is of course true to a good understanding of all the arts, but is especially true of music, since the language of music unless expressed in tunes is not easily understood. And in reaching up to understand, man gains in breadth of intelligence.

Fortunately for the betterment of mankind, people are craving to interpret the works of masters, and there are teachers ready and willing to help us understand. The road to appreciation is not a difficult one to travel, since every step onward brings an added pleasure, and as the sounds along the way become more familiar to the ear, progress means enjoyment.

Learning to appreciate music may be likened to being lost in a forest. The first thing you are conscious of is the vastness of the woods around you; you are surrounded by trees, familiar enough sights to you, you may even know the kinds by name, but their number confuses you, you feel helpless, sure that no matter in which direction you turn, you'll not find the way out. But if, as you wander along, you sight the outline of a foot-path, or your eye rests on the familiar contour of a well-known tree, or your listening ear detects the faint ripple of the forest stream, your heart leaps within you, for you know where you are, and you are no longer groping blindly. And now the forest, so vast and unsociable, becomes an old friend, a feeling of kinship with your surroundings arises in your heart and you enjoy the trees, their shade is no longer a gloomy shadow but a grateful protection from the glaring sunlight; you admire their tall forms, you see the animal life busy and happy all around you; you stoop to pick the flowers, linger by the stream, perhaps lie down and rest your weary limbs on the soft grass, while with expanded chest you take in big lungfuls of air and exclaim in grateful tones, "This is beautiful!" The forest now talks to you in language you understand, language so simple and direct that all your senses are satisfied. You are no longer confused and alone, the sights and sounds around you are but the images and echoes of your own soul.

Let the untaught listen to a Wagner opera, his first impressions will be those of confusion in the mass of sound. He will fail to see any meaning in it at all. But as he is taught to look for the motives, to distinguish them, and to understand their significance as he becomes able to read in the character of the music joy, sorrow, passion, expectancy, or doubt, the plot of the opera unfolds itself before him, and he is no longer surrounded by a forest of unintelligible sounds, but as the music proceeds he finds himself wandering through familiar paths, listening to well-known voices, and, willing to linger if he dared, he is carried along athrill with sympathy. Some people are fortunate enough to be born with a capacity for enjoying good music, but most of us have to be educated up to it.

Before the imagination or fancy can be awakened and the spiritual nature of a great composition appreciated, there must be an intelligent hearing the first time. It is not necessary that the listener be conversant with all the technicalities of the material side of music but he must know something of the general design and the essential musical elements. We first recognize with little or no intellectual effort the tones and relation of tones which, as we have said, form the raw material of composition. Then with a little exercise of imagination and memory, and power of concentration added to a knowledge of the design of music as set forth in the previous chapter, the listener will be ready to make comparisons and recognize the elements out of which music is made. One must make an effort to recognize musical tones as related to each other in regard to time and pitch, and some men intuitively recognize the three chief elements of all music — rhythm, melody and harmony.

In the order of development and of understanding of these elements first comes rhythm, recognized, felt by almost all men, a grouping of tonal time units so accented as to make one feel the swing or movement of the music, it is an unifying, life-giving element, appealing at once to the sensuous as well as intellectual emotions. There must be a blending of these tones else all is discord; the law of the universe requires harmony, it is an essential to life and to truth and to beauty, and with these two elements we have a flow of tones which blend or harmonize with each other, and in the correct ordering of these tones or series of tones heard successively rests the value of the melody which forms the larger unit upon which the design of a composition depends. Melodies of course contain smaller units which derive their individuality from their rhythmical and time value characteristics, and as the ear becomes accustomed to a melody the intelligent listener will be able to distinguish these smaller parts which are termed phrases, periods or motives.

Melodies are not all simple nor on the whole easily followed. In the songs of the people one usually recognizes the melody at once by the rhythm which is well defined and which characterizes the song. If one will mark the movement or rhythm he will find by a little exercise of memory that he can follow a theme or musical subject through larger instrumental work where its repetition, though varied, forms the central idea of the composition, until the listener is able to so follow the composer's thought and to find it even when it appears to be lost, crowded out by a great variety of device and seemingly new material. Until he can hold the theme in mind and know it when in new attire, he cannot appreciate a composition as a whole, he cannot understand the design of its author nor really understand any part, for a truly masterful work in music is like a wonderful picture, where every detail is necessary to the beauty of the whole, and in which the spectator does not appreciate the detail until he has grasped the idea as a whole, and so sees what part it fulfils in the larger scheme. Gain then first a fairly good idea of form, so you may know what to expect, a sonata, an opera, or fugue, you want to understand.

Many make the mistake which has come to them through the fanciful pictures poets and romancers have given us of certain musical works, that there must be a picture of some kind or a story in every piece of music, and that if they fail to understand it all as such, or fail in their picture to agree with another, they are made to feel that perhaps they are lacking in imagination and hence in musical appreciation. One must not forget that the composer is not imitating even in the sense that the sculptor is, his ideas are mainly and primarily of a purely musical nature. He conceives a definite beautiful melody and seemingly aims at no more; but every concrete phenomenon suggests its own class or kind or leads to a wide conception or larger class in which it is but one element, and in this way for instance a melodious adagio softly dying away suggests the idea of gentleness and of concord, an abstract idea. We by an imaginative faculty establish relations between the conceptions of art and our sentiments and we construe different strains of music in lower or loftier sense according to our habit of thought and our ability to see great truths in small things.

Though all arts have the power to act on the feelings, music is peculiar in the manner in which it displays its power. It works in our emotional faculty with greater intenseness and rapidity than the product of any other art. A few chords may arouse in us feelings which a picture or poem could only arouse by long contemplation. The action of sound is so sudden, so powerful and so direct, it takes us by surprise. But undue prominence has been given to the action of music on our feelings, and there are those who seem to think that the more violent the action the more evidence there is of musical beauty. The power which music possesses of affecting the nervous system cannot be so much ascribed to the artistic forms created by the mind of the composer and appealing to the mind of the listener as to the material with which music works. Many listen to music with the physical ear only; they are in a state of passive receptivity and allow only the elemental in music to affect them; they are not observant, they exercise no power of will but are rather in a state of waking dreaminess, lost in the harmony of sound. Such listeners, and they are numerous, do not understand the special feature of a piece nor the individuality in its artistic interpretation, a number of compositions of like general character, say solemn and somber, will all impress alike.

Instead of closely following the movement of music they allow their senses to be satisfied, their faculties to be lulled by the flow of sound, now increasing, now diminishing in strength, now rising to jubilant strains, now softly dying away. It produces in them a series of vague sensations which they may even imagine to be the result of intellectual action. It is such listeners who lower the dignity of music. If they allow themselves to be carried away by the purely elemental in music so as to lose mental control, they, for the time, lessen the glory of art as well as that of man. To enjoy with a keenly observant mind is the most dignified and beneficial mode but by no means the easiest one of listening to music. Without mental activity no æsthetic enjoyment is possible.

The habit mentioned of passively listening to music, of reveling in sensations and emotions, is invariably limited to those who have not the preparatory knowledge for æsthetic appreciation of the beauty of music. Feelings, which play so important a part with the uneducated listener, are overshadowed by the intellectual enjoyment of the true lover of music; the first will usually ask whether music is gay or sad, while the latter wants to know whether it is good or bad. One should listen to a composition for its own sake no matter what it is or what construction it may have; the moment music is used as a means to induce certain states of mind as accessory or ornamental it ceases to be an art in a purely musical sense. We must not confound its elemental properties with its artistic worth. If one has really heard and appreciated a piece of music he will carry away with him something more than a vague after-effect of his feelings, he will have a definite and lasting impression of the particular composition. The real listener to be such must know what to look for and how to look for it in any music.

The distinct recognition of the melody is the first step toward musical appreciation. The careless audience is liable to consider its immediate effect upon the ear or its dramatic power over the emotions of more importance than its containing in itself the germs of a well-developed and symmetrically rounded composition. Many melodies appeal strongly to the emotions but may contain no material which can be developed for an orderly composition; they may be themselves charming and interesting and even inspiring bits of music, while another apparently homely phrase contains the potency and power of a whole splendid musical movement or several movements. The melody once caught by the ear must be firmly fixed in the mind that it may be recognized when it appears in part or with other material. The untaught will find that this task is not an easy one at first and that it requires close attention and observation. And after this a severer tax is made upon the mental faculties, and one which affords keenest enjoyment, that of finding the relation borne by one part of the composition to another, which really means an understanding of the organic character of its structure. The mind now works with larger units than when it learned to recognize melodies. In making an effort to gain first a clear perception of the melodic unit and then of the relation between the larger and larger musical units, the listener undoubtedly loses a certain amount of purely emotional pleasure, and for that reason he will not as thoroughly and completely enjoy the first performance or first few performances as he will later when his mind grasps the plan of the whole without great effort and can give more attention to its beauty as an artistic whole. This power, however, must be gone through with if the pleasure we derive from music is higher than vaguely emotional gratification.

The attainment of absolute pitch, or pitch memory, should be the ambition of every lover of music as well as every musician, and should be no more difficult to learn than tunes or any musical composition. All people who play by ear, and many who play by note, learn and memorize many compositions more or less difficult by hearing them repeated a few times without ever having seen the notes. Why should they not at the same time fix the pitch fully in mind and always play them in the original key? The composer selects a certain key for his composition for the reason that certain desired effects cannot be secured in any other key. A composition written in sharps should not be played in flats, and the transposing of the composition even one-half tone higher or lower changes its character. A good musician can memorize the most difficult composition from the score alone without the use of the instrument, and therefore pitch memory is an essential qualification for the accomplishment of such a feat.

It has been urged that absolute pitch may be a detriment, that because of the three different pitches in use—French, International and Concert—one is likely to be confused. This, however, is but the splitting of a hair, and it may as well be contended that a highly trained ear is a detriment, in that to the average person slightly out-of-tune instruments in an orchestra will pass unnoticed and the performance be thoroughly enjoyed, while to the highly trained ear they will prove to be a distinct shock, and its possessor will be exceedingly uncomfortable. We might as well discourage the study of art on the ground that a picture may be pleasing to the multitude while to the trained eye of an artist it is out of drawing, bad in perspective, poor in composition, or inharmonious in color.

Pitch memory is not as difficult as it seems, and may be acquired by practise, although it comes to some much more naturally than to others. If a company of people are in the habit of singing together without accompaniment one person will always be asked to start the songs because he has a good pitch memory and never runs the tenor too high nor the basses too low, and usually among a dozen singers, at least one will be found who has absolute pitch, or, at least, very near it. Every one knows the range of his own voice, his lowest and highest note, and by a little effort can fix these in his mind. Let the student compare his lowest tone with a tone he hears and fix as nearly as possible the pitch of the latter in his mind, then verify the pitch on the piano. Repeated trials of this kind will soon convince him that "practise makes perfect," and he will soon be enabled to name any note he may hear and know the key in which any composition he hears is written.

An understanding of the difference between the major and the minor keys helps one greatly to appreciate the mood the composition is to convey. A composer chooses the key which best expresses the emotional character of his composition. The key of A major, for example, seems to the trained ear very brilliant, while the key of A minor, the simplest of all the minor keys, is dull and somber. The key of B major is sensuous, rich and brilliant, but B minor expresses simplicity and sincerity. The key of C major is noble, frank and open in expression, while that of C minor expresses pathos. The key of D major is brilliant, that of D minor is sad. The key of E flat is grand but also pathetic, while the key of E major is sparkling and vivacious. The key of F major is mixed in expression, and that of F minor is most pathetic of all. The key of G major is used to express warlike emotions though it is not so lofty a key as the C major, while the key of G minor is only a little less pathetic than that of F minor. It will be seen from this that the composer has a wide range to choose from, and a comparison of the major and their relative minor keys reveals the fact that the major keys usually express outspoken, brilliant moods, while the minor are used to convey the idea of pathos, tenderness and artlessness.

A study of the major and minor scales, and of the major and minor chords can be summed up simply, and since most of the changes of the key in a composition take place through a change in chords, called modulation, it is well to know something of the two kinds of scales and of the formation of chords. The difference between a major and a minor key lies principally in the interval between the first and third steps of each key. The interval formed between the first and third steps in major keys produces a large third; the interval between the first and third steps of minor keys produces a small third. If to each of these intervals is added the fifth step of the scale we have formed a chord of three notes called a triad. The one with the large or major third is a major triad, and the one with the small or minor third is a minor triad. The effect of major triads is joyous; the effect of minor triads is soft and plaintive. The principal major triads in the major key are the ones on the first step, the fourth step and the fifth step, constituting the primary triads of the key. All other triads of the major scale are minor triads, except the one on the seventh step, which is a diminished triad. In the minor scale the triads on the first and fourth steps are minor triads, but the one on the fifth step is a major triad. These constitute the primary triads of the minor scale. The triad on the second step is diminished; the one on the third step becomes an augmented triad. The augmentation is formed by its fifth tone being raised a half tone, making both intervals major thirds. The triad on the sixth step in the minor key is a major triad, and the one on the seventh step is a diminished triad. All the chords heretofore mentioned in their intervals in the major chords have had first a large and then a small third; the minor chords having a small and then a large third; the diminished chord having both thirds minor. One can see by comparing the different possible chords in the major and minor scale, the difference in harmonies, and the possibilities in modulation and tone effects.

The minor key was originally formed by beginning on the third tone below any given major key, using the same intervals of the major key through one octave, and it was called the parallel or diatonic minor scale. This, however, was unsatisfactory because really it was only the scale of C beginning on A; and while the interval from the first to the third step formed the required minor third, nevertheless the distinguishing mark of the scale, the seventh tone, which should be a half tone before the octave, was absent. The seventh note in the minor scale was then raised a half tone and this newly formed scale was called the relative minor scale. Its form-name was the harmonic minor scale. This being still unsatisfactory to some minds because it left a step and a half between the sixth and seventh tone, another change was added by raising the sixth tone a half step; this formed what is now termed the melodic minor scale. The chords indicated before were based on the harmonic minor scale, which is commonly used as a basis for all harmony work. The student can see from this that a composer has three different kinds of minor scales to work from and the possibilities in minor compositions are three-fold greater than those to which the composer is restricted in the major keys. There is one other cause besides the difference in keys to which we must look for what some call harshness in compositions. Besides the triads so commonly used in harmonization and modulation there are seventh chords; in other words, to the former mentioned triad is added one interval more, a third, which forms the interval of the seventh. The seventh chord, formed on the fifth tone of the scale, is the most pleasing one of all the seventh chords formed within the scale, and is therefore termed the dominant or ruling seventh. All the seventh chords formed on the other steps of the scale are called secondary sevenths, and the one on the seventh step is the diminished seventh, both its fifth and seventh being diminished. Any composition which makes much use of these secondary seventh chords will appear to some ears harsh, but as some people like dissonances, and some grow to like them when they are used right, this source of unpleasantness changes to one of pleasure. The cause of apparent difference in the feeling of different keys, which people experience at present, is mostly due to faulty tuning or to the bad condition of their instruments in some other respect. Of course, if the pitch of a composition is suddenly raised one half or whole tone, it will appear temporarily brighter, if lowered the contrary effect takes place; otherwise, considering all from the standpoint of a perfect instrument, the difference in keys will hardly be noticed. Much depends upon a piano being in tune. A good instrument in tune will produce mellow, soft, beautiful tones and the same instrument, if out of tune, even slightly, will sound harsh, hard and unpleasant.

The effect of keys in compositions and their choice is entirely determined by the mood of the composer and the mood in which he intends to have the composition appear. If it is to be a brilliant and striking march, he will choose a major key. Example, Wagner's March in "Tannhäuser" at the entrance to the Wartburg. If the composer wishes to express a death scene he chooses the minor key. Splendid examples are Chopin's "Funeral March" and Beethoven's "Funeral March" Sonata Opus 26, their tones are soft, singing, expressive, sorrowful, sometimes pathetic and often weird. One must not think that the minor key is restricted to sad music. Some nations use it even in their dance music, as the Poles in their mazurkas, many of which are in the minor keys. This would rather mean that the Poles even in their joys have not forgotten their sadness. Of course the

Strauss waltzes are always in the joyous major keys, expressing only gaiety, with never an undercurrent of sadness, as in the Polish mazurkas.

As the preceding chapters of this volume have given the reader a knowledge of the elements of composition we will no longer dwell upon musical structure in general but attempt to give some hints which may prove of value in interpreting music as performed on various instruments or by the human voice. We may differ in our opinions of what is good music and in a particular interpretation of a composition but when we come to the technical qualities of a performance differences of judgment should not exist. A good or bad execution of a symphony is not a question of opinion but of fact, and the musical critic, cognizant of the technics of the art, can pronounce judgment upon the performance with absolute certainty.

THE ORCHESTRA.

Because the modern orchestra is perhaps the most potent and the greatest of all instruments we consider it first. As it is intended to perform the most complex music it must necessarily contain a great compass, wide range of timbre or tone color, the greatest flexibility, and a solid sonority which can be maintained from the finest pianissimo to the heaviest forte. If it is not possible for you to distinguish by ear the various wood, brass and string instruments during the performance, it would be well to have some musician identify them for you, as they can be learned only by hearing them often.

The orchestra consists of four groups of instruments, or choirs, as they are called. The first includes the viols, that is violins, violas, violoncellos and doublebasses; the second, the wind instruments of wood: flutes, oboes, clarinets and bassoons; the third, the wind instruments of brass: trumpets, horns, trombones and bass tuba; and the last group consists of kettledrums, big drums, cymbals, triangle, bell, chimes and other instruments of percussion. The arrangement of these instruments varies with the taste of the conductor of an orchestra, though as a general rule for concert work the violins, violas and cellos are usually in the foreground as they are the real foundation of the orchestra and make this effect by a massing of voices in each part and hence are given the places of advantage. The bass instruments and the drums and other percussive instruments are placed farthest from the hearers, usually occupying the center of the stage, and back of them and to the left are the double-bass string instruments. The flutes, oboes, clarinets, bassoons and horns are in the center, with violins and violoncellos in front, and at the side of them and just in front of the drums will be found the trombones and cornets. This distribution is indicated by the volume of the various instruments. The strings are treated by the composer as a choir, but the others as solo instruments, for a single oboe, flute, or other wind instrument may do the same work in a development of a composition as the whole body of first violins.

The number of instruments of each group depends somewhat upon the music to be performed or the special use to which an orchestra is to be put, whether symphonic or dramatic. A number of instruments required in a dramatic orchestra, such as brass trumpet, tenor tuba, contrabass tuba and contrabass trombone, are seldom called for in concert work, and so have no place in the regular list of instruments. About three-fourths of a well-balanced orchestra, say one of ninety or one hundred instruments, consists of strings, which choir is usually spoken of as the string quartet. Its chief instrument is of course the violin, the one which practically leads the entire orchestra, for its clear, penetrating tones make it the richest of all the voices, and the brilliancy of a composition is portrayed by the mass of violins playing in the upper or middle register. Instrument-makers, performers and composers have combined their skill and genius and made our modern orchestra into an instrument whose range of expression is almost infinite. Its voices are so many and so varied that there are no shades of tone color it cannot touch, and its compass reaches from the lowest tone on a piano, given by the bass tuba, to the highest found in the voice of the piccolo flute. The lowest note is about as deep as any in which the ear can detect pitch and the highest as acute as it can recognize.

The viols are only solo instruments, except the harp, which can play harmony as well as melody; their range is the most extensive and are capable of more manipulation by the performers than any other instruments and answer more quickly and eloquently to the feelings of the player. The wind instruments are of course dependent upon the breath of the players and so are somewhat limited in their ability to sustain tones, and in this respect the viols have a great advantage over the other choirs. For these reasons the stringed choir is depended upon to sustain the life of orchestral music.

Usually the violin part of an orchestral score is two voiced, first and second violin, but there may be many smaller subdivisions which produce entrancing effects. Between the first and second violin the only difference lies in the music written for them; it is a division made in order that the middle parts of the harmony may be properly filled out. The first violins are frequently called the sopranos of an orchestra; the second violins are the altos; the violas are the tenors; the violoncellos are the barytones; and the double-basses are the basses. This is not exactly a true division, for the viola and cello are capable of a soprano register, but when all are playing together the order is correct, and as the viola then would lie too far below the violin part if all violins were played together, we have the second violin. The viola is an important instrument owing to its beautiful quality of tone; in its lower tones it is rather gloomy and somber, while in its upper tones it becomes tender and pathetic.

In size it is next to the violin and is tuned four intervals lower. It blends beautifully with the violoncello, whose strings are tuned an octave lower. The violoncello possesses a marvelous capacity for expression, next to that of the violin, and it can speak the language of tender passion more effectively than any other of the stringed instruments. The doublebass provides the foundation for the harmonic structure of the orchestra. Solos are only seldom given this instrument. It sounds an octave lower than the music written for it and is called therefore a transposing instrument.

The wood-wind instrument group is capable of playing by itself in full harmony or may be divided into small groups, each of which can produce melody and harmony. The entire choir can be combined with all the strings or all the brass, or with parts of either of these groups. It is not difficult to distinguish these instruments as they are so frequently used in solos. Each wood-wind instrument has a strongly characteristic voice adapted to certain styles of music and it is only by combinations among other or with other groups that they possess any great range of expression. Flutes and oboes are purely soprano. The flute is an instrument of marvelous agility and can be blended with great effectiveness with other instruments, though brilliancy and superficial sentiment are about all that are required of it as a solo instrument, for while its voice is sweet, at times soft and complaining, its low tones are not rich, and, compared with the oboe or clarinet, it is expressionless. The oboe is a melody instrument of a pastoral nature and is frequently used in the orchestra in imitative music. It can well express feelings of joy, grief and tenderness, and Beethoven has used it to give the melody of the funeral march of his Heroic Symphony. While the oboe is a grave and rather timid instrument, the bassoon, while using the same grave voice, becomes almost humorous because of its deeply solemn voice combined with its great flexibility of utterance. The clowns in Mendelssohn's "Midsummer Night's Dream" are introduced by music for two bassoons.

The clarinets, both soprano and contralto, are perhaps the most expressive of the wood-wind instruments, as they have the widest range — over three and a half octaves. The voice of the clarinet is rich and mellow and much fuller than the oboe, though its high tones are rather shrill and even screaming, for its beauty lies in its middle tones. These wood-wind instruments are usually employed in pairs, though frequently a third flute, clarinet or bassoon is added, and occasionally a fourth. The tones in these wood-wind instruments are all produced by vibration of reeds.

The lips on the brass instruments take the place of reeds, and the variety of tone and of quality depend upon the shape, size and modifications of the bell and the mouthpiece of the brasses.

The brasses have been greatly improved in the past fifty years, and today can give all the semitones within their compass, which improvement over the old brasses has been accomplished by the means of valves which control the length of the sonorous tube, and bring it within the mastery of the player. Four horns, two trumpets and three trombones with perhaps an addition of a bass tuba usually comprise this brass choir. The horns are used either for solo purposes or to sustain long chords in support of other instruments.

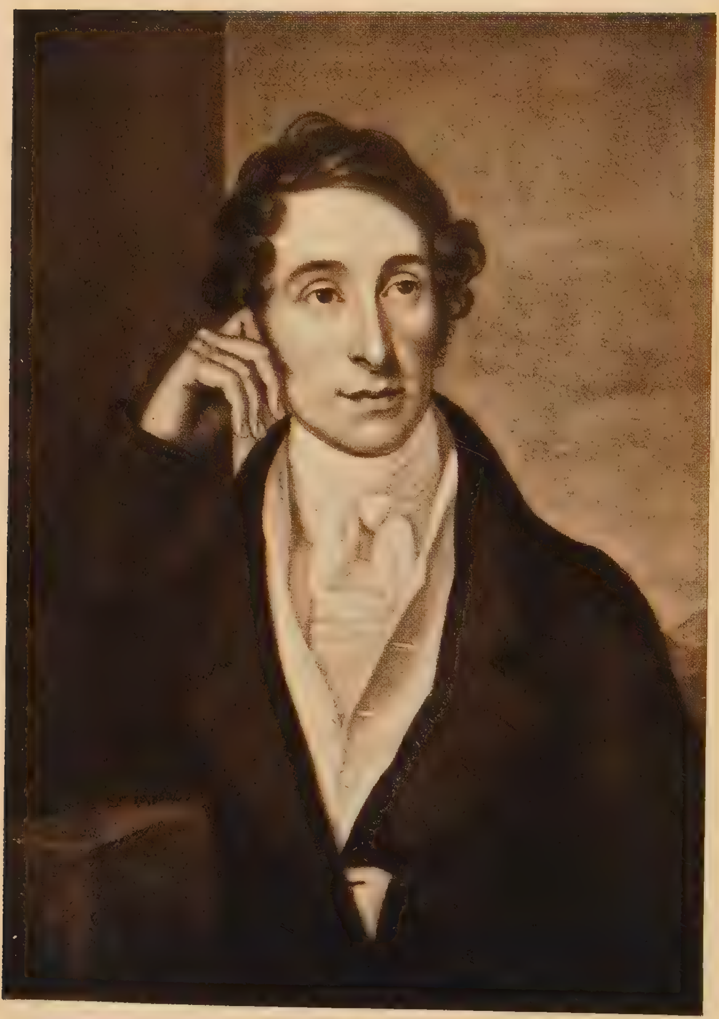
The French horn is the old hunting horn of the Middle Ages adapted for orchestral use. It is a valuable member of the orchestra and among the brass instruments the most expressive. Its range is very wide and it is employed when heavy, thunderous sound is required, or it may unite in softest of chords with strings or clarinets, for its voice is powerful and yet mellow and sweet. Two familiar horn passages which clearly and distinctly show the tone of the instrument are the hunting calls which precede the entrance of the Landgrave in Act I of "Tannhäuser," and the trio in the scherzo of the "Eroica" symphony.

The place of trumpets we usually find filled by the more familiar cornets, which are the highest voiced of the brass instruments. They seldom give the melody except when the choir of which they are a member plays alone, or, as occasionally happens, leads the orchestra, but are oftenest used in chords. Their tone is brilliant and often combatant, and as the head or lead of a brass band are familiar to all.

The three trombones, alto, tenor and bass, are known for their majestic, serene and dignified tones; they are wonderfully expressive, and no other instrument can equal them when a nobly solemn and spiritually elevating effect is required. Though chiefly used to sustain harmonies, they are often found in melodic passages, and act as heralds for the orchestra, proclaiming the entrance of some musical idea.

The tuba, the doublebass of the brass band, sounds the lowest note of its harmonies, and though of great size it can be made to respond to the gentler moods of a composition. While we usually think of a great volume of sound in connection with the brass choir, a little observation shows us that it is capable of vague, far away tones, and when played softly, as in the prayer in Lohengrin, it is quite as effective as when used for volume of tone in a combination with the entire orchestra.

Except the kettledrums or tympano, which can be tuned to certain tones, the instruments of percussion are used only to accentuate rhythms. Many of these, such as steel bass gongs, bells, and tambourines are used for rather fantastic work and by some composers are considered unnecessary for performances of the best compositions. The kettledrums are usually used in pairs, and because they possess pitch are really musical and therefore of greater value. They are tuned in various ways, allowing for a frequent change of keys and so that they can be used as harmony instruments. The position of drummer is not, as many seem to think, an easy one to fill; he must have a perfect sense of tune and rhythm and also of pitch, as he must at times change the pitch of one or both of his drums in a very few seconds, and this while the orchestra is playing.



CARL MARIE VON WEBER. 1786-1826

Founder of the German romantic opera. The first composer to create German musical liberty and do away with Italian opera in Germany. His work was all thoroughly German, and it is this quality more than any other that has given him his place in the musical world.

H. E. Krehbiel says: "The reform not only in composition but also of representation achieved by Richard Wagner is an artistic legacy from Carl Marie von Weber."

In our present-day orchestra even the big bass drum is so handled as to give effective results. It cannot be manipulated as are the kettledrums because it has no pitch, but it is used effectively with one large stick or the smaller ones of the kettledrum in heavy parts of compositions where the entire orchestra is employed or, in the language of the musician, in "tutti" passages.

One cannot hope the first time he listens, say to a symphony played by a large orchestra, to hear all the voices of the instruments at once and recognize an instrument by its voice. The pleasure one derives from an ability to follow the various instruments and to discover just what place each one fills in the interpretation of a composition is worth the oft-repeated effort and close attention it requires. Every one who wishes to gain much from good music should acquire the habit of ear analysis. One should have at least a fair knowledge of the form or design of a composition before he hears it played by an orchestra. For instance, if it is a symphony he knows first by its name that it is a sounding together, an employment of all the resources of instrumental sound, and further that it expresses a kind of modulation through three or four different moods of one dominant feeling or musical idea. There is usually a close relation between most of the compositions heard at a classical concert. The study of form has shown the reader that the sonata form really lies at the bottom of symphonies, symphonic poems, overtures, concertos for solo instruments and orchestra as well as smaller forms, such as trios, quartets and quintets for strings. If a composition then follow, not exactly but in its general structure, a scheme such as is found in the sonata form and is one composed of a number of parts or movements, it is according to the treatment of parts a symphony, concerto, or sonata. If written for a solo instrument, we have the sonata, if the accompaniment is written for an orchestra, a concerto, and if the entire score is for orchestra then we have the symphony.

In the first of the usual four parts of a symphony we recognize the sonata form in which are found the melodies which are to form the subject for later developments. Invariably a symphony begins simply in order to show its scope. If it open with a burst of chords they will usually be followed by a quiet, even legend-like theme, which seems to float from the heavy opening chords. Either wood-winds or strings and occasionally brasses will carry this theme, and after a few bars of simple, possibly solemn, chanting of the subject, you will feel a stir of motion among a second choir, while the theme still continues, and then the other instruments seem to gather impetus, and they are soon either echoing a response to the wood-wind choir, which is now carrying the melody, or are giving the rhythmic swing, by their chords, filling in harmonies, or taking an active vocal part and giving color to the whole. Then, after the theme has been stated and restated, comes the period of discussion, or the development, in which we find the composer's learning and fancy exploited; it is the free fantasia, and it is a delightful excitement for the symphony lover to follow the fancy of a composer through these parts. You usually find the highest contropuntal discussion between the voices. In the string quartet the violins each seem to be exploiting their ideas of the subject now successively, now by alternate interruption or in dual agreement; later, possibly the oboe, and then all the wood-winds, voice their opinions, and then perhaps the brass and even drums join in the discussion, often with seemingly irresponsible merriment. There is perfect freedom of utterance in this development. After this development we find a return to the first division, a repetition with modifications and the addition of a close.

The first movements are usually rapid and full of dramatic fire and contain, as we have said, the theme which is to be worked out in all other parts, its sorrows, griefs, hopes, despair, in a second slow movement; its gaiety or merriment in the scherzo; and its triumphant or tragic ending in the finale, which is a movement of large dimensions and of great importance. After the playful, merry mood of the scherzo, where perhaps the strings and flutes may but whisper the answer to the loud strains of other whole choirs, and the basses carry on a comic, mocking rhythm or even melody, we are brought back to the more serious and stately consideration of the theme for the close. The violins perhaps start up a simple but emphasized melody and often strictly repeat it quite as though to make sure we know it as it stands unadorned, and as this theme occurs and recurs in constant rounds we discover this finale is in rondo form instead of the sonata form of the beginning. After the themes have been played, perhaps only by strings, or by strings with other choirs, or by the wood-winds alone, there comes often a passage in which the whole orchestra joins with loud triumphant acclaim and then seems to drop exhausted into a cadence, whereupon the strings with possibly a little assistance from the wood-wind instruments gently toss about snatches of the melody, and then after this little respite the whole orchestra again enters. In this part you usually feel the deep design of the composer even though you have not felt it before, a feeling of completeness and usually of profound dignity. Often a serious fugal passage follows the rondo form, and continues for a brief time and lends a novel charm of mystery at the very close, which comes then after a lull in volume and rhythm, with a vehement passage for full orchestra and a furious hurrying of the theme in various rhythmic guises and in loudest and most emphatic voices.

In order that an orchestra may well interpret a composition the composer first carefully considers the instruments, their flexibility, volume, register, range of expression, and balances his work as a whole. One part of an orchestra must not overpower another, as a good result depends upon the arrangement and proportioning of instruments and upon the work of the conductor. More strings than brass and wood-winds are necessary and at least sixteen first and sixteen second violins, twelve violas, ten cellos, and eight doublebasses are needed to secure the proper balance, while more may well be added. Solidity is another element we have a right to expect in a good orchestra, and this is due partly to the arrangement of parts by the composer or one who arranges a composition for orchestra, and partly to good playing. Almost any ear appreciates a full substantial resonant body of tone and at once detects one that is hollow, thin, or nasal. Occasionally the acoustic properties of a concert hall are so poor that even though the quality of tone of each instrument and of the various choirs may be rich, smooth and full, and the many voices of the orchestra work perfectly together, one feels conscious of a lack of solidity, and finds upon inquiry that the orchestra was in no way at fault.

Again, one can soon detect a failure of instruments to attack a phrase properly; the orchestra should act as one voice, and every tone should be begun and ended by every instrument at exactly the same instant, otherwise the theme or phrase lacks definiteness, you feel the careless, unorganized handling of instruments, and it detracts materially from one's enjoyment. When one instrument drags ever so little behind another the rhythms are not perfect, and the smoothness and the unity of the performance are ruined. We admire brilliant passages partly because we realize what precision and unity they require. Unstinted applause should be given a conductor and his orchestra for a perfect performance. Arduous and frequent rehearsals, constant practise by the various instruments, continued working together of the separate choirs and the entire orchestra, a subordinating of self and instrument for the perfection of the orchestra as a whole, a common sympathy and understanding between conductor and his men, are all necessary.

Many of us fail to recognize the power of properly analyzing a composition which is required of the conductor. He must know the symphony, the concerto or overture, thoroughly, know it so that he has formed his own ideas as to the manner in which it should be performed, and then he must possess the ability of imparting his ideas to the orchestra. He is responsible for the interpretation of a composition just as is a pianist for a piano solo, and while he may seem to hypnotize his men, depend upon it, his is no such easy method. By the sympathy which exists between all artists or all who can feel and speak in one language, he is able to convey to his men his ideas, but it means work, and arduous work, both for him and for them to become as one great, powerful voice.

Go to a concert prepared to understand intelligently the message a great composer has to give you, knowing what you have a right to expect in the way of interpretation and of execution, and do not be afraid to show your appreciation of the good work the men and their instruments are doing for your enjoyment, nor be timid about withholding praise where none is due.

CHAMBER MUSIC.

Chamber music includes compositions which are written for limited groups of instruments suitable for performance in small rooms only. It originated during the Middle Ages when music was used as a means of entertainment to add to the further pleasure of banqueters.

As the demand for such performances grew, musicians realized there should be a special kind of music suitable to the size and nature of the instrumental collection. It was not, however, until the violin was made so prominent in all instrumental compositions that chamber music as we know it began to assume a definite form. It was in Germany that these smaller instrumental forms developed. To-day under the head of chamber music we place trios, quartets, quintets, sextets, septets and octets, named according to the number of instruments employed. The trio is usually written for piano, violin and cello, though frequently we hear combinations such as piano, violin and horn, or piano, violin and flute. The quartet, if the word is used alone, usually signifies four stringed instruments: first and second violin, viola and cello; while a piano quartet is one in which the piano supplies the place of second violin. Two violins, two violas and a cello is the usual grouping for a string quintet, but occasionally two cellos are used and but one viola with the first and second violin. Either the second viola or second cello gives its place to the piano in a piano quintet. Wood and brass instruments are sometimes introduced for the larger groups, and in fact no definite arrangement of instruments can be fixed upon as composers have written music for an almost endless number of different combinations.

As a form of music, such as is known to the modern concert program, chamber music began with Haydn's first quartet, written about the middle of the Eighteenth Century, when the sonata form had assumed definite shape. Musicians had discovered that the sonata form was the best adapted to the thematic ideas necessary to good chamber music. For a time some musicians considered the string quartet too light a group of instruments to portray much feeling or to give them a chance to display their genius, but this was because they failed to understand the wonderful power and scope of the instruments, especially of the violin. With a greater mastery of this wonderful instrument, as we have already seen in our study of design of music, the sonata form was perfected, and such masters as Haydn, Mozart and Beethoven created quartets with such fluent and simple melodies, so well balanced and symmetrical in form that they still hold their place in concert rooms today. They found by experiment, as have more recent composers, that the string quartet offers every opportunity for the development of instrumental music both as to expression and technical construction. It requires clear, logical composition in order to preserve the balance of the instruments, and as each instrument is capable of the greatest variety of melodic structure the composer must use great skill in distribution of parts.

In piano trios and quartets of modern composers we often find the piano part so brilliant and heavy as to overpower the strings, ruining the idea of the trio quartet by bringing one instrument into greater prominence than the others of the group.

We look then for about the same skill in the performance of chamber music that we do in orchestral performances. While we cannot expect the same massive solidity of tone, for no four, five or eight instruments can give this as is possible with the several large groups of an orchestra, we may look for the same excellence in balance of parts and in quality of tone.

In producing an exact agreement of tone as regards quality and power, the string quartet far surpasses the orchestra if properly performed, for this quality depends largely upon the skill of the musicians.

It is because many who listen to concert performances of chamber music do not seem to know that its excellence lies largely in the subordinating of each instrument and each performance to the balance of the group that they encourage the bringing into prominence a special instrument, usually the piano.

The pianist in a quartet should subordinate himself and his instrument quite as much as he who plays a piano accompaniment to a vocal solo, only in the case of chamber music there is or should be no solo part. When the three, four, five or more instruments so work together, so blend as to give the effect of a great voice with various registers and wonderful compass and range and marvelous power of expression, then we know the composer and the performers have builded and unified the parts and instruments for the beauty of the whole and we are listening to an artistic compostion artistically interpreted. This perfect balance is possible in a quartet as it cannot be in a great body of instruments and performers, for so much depends upon the common understanding, common sympathy of a band of musicians who must become but parts of one great instrument. This sympathy may be found in a large orchestra, inspired and matured by a wonderful conductor, but it is more often found in some of the famous quartets. Their close and long association and earnest study of the same works make it possible for them to play with a fineness of expression and with a unanimity such as calls forth the appreciation of the most intellectual music-lovers. Because of the flexibility of the instruments of a string quartet and the capability of expression of the strings the chamber music can be carried to a nicer, finer finish than almost any other instrumental performance; massiveness is not possible nor desirable but rather exquisite polish. It never depends upon grand, startling effects, such as are produced by an orchestra, by a volume of sound that reaches beyond the confines of a theatre or hall, but rather by its innate beauty, its purity, and appeals through the intellectual faculties to the higher emotions.

THE PIANO.

Piano technique includes not only skill and rapidity in striking the correct key but includes with this the manner of tone production. The player may play the most intricate passages without a flaw, striking no false notes, playing with exact time and perfect rhythm, but if in touching the keys he fails to produce a warmth of tone his performance leaves you cold and untouched. Brilliancy of execution, marvelous rapidity, bewildering images of tone dazzle many an audience and call forth enthusiastic applause, and yet the soul of the composition has not been revealed at all. And surely the composer wrote with his heart in his work, for music, more than any other art, is the expression of man's inner life. Music flows from the soul of the musician, it is an expression of his emotions and his moods, and since no two people think just alike nor feel just the same feelings, the same composition in the hands of different performers must be as different as the personality of the players.

It is the duty of the piano player to study the composition thoroughly, that he catches the spirit in which it was written before he attempts to give it to an audience. We cannot pick up the score sheets of music and read them as we would a book; not until we hear the tones do we get any conception of them. And the composer, in this respect, suffers a great disadvantage when compared with the sculptor or the novelist. The carved image, the printed page are more or less intelligible to all who can see, but the score sheet with its hundreds of little dots, scattered with seeming carelessness singly or in groups over its pages remains an unsolved enigma, and not until the tones which those little black notes stand for are produced can we understand or even guess at what the composer has to tell us. The piano with its wide range of pitch, with its modern contrivances for sustaining and blending the tones by means of different kinds of pedals, is now an almost perfect instrument. Formerly, when composers worked out their compositions they used the violin as their medium of tone production, but now the piano is used for such purposes. This goes to show how high a place this instrument holds in the estimation of music creators. The old harpsichords were utterly incapable of producing the blending masses of tone of the modern piano. Their tones were thin and fleeting, utterly devoid of the rich tone coloring of the piano. That player who best tells the story, or, who by his touch adds caprice, pathos or tenderness to a melody, who satisfies the intellect and arouses the emotions, that player is an artist and we are grateful to him for the pleasure his music has given us. Music should reach the heart through the ear just as a beautiful landscape rouses the emotions through the eye. Its effects should be ennobling, it should not satisfy the sensual side of your nature by pleasing the ear as a bit of luscious fruit pleases the palate, but should lift your thoughts to higher things. Not until the music does this, by striking an answering chord within the breast of the hearer, can it be called great or good, nor will it live.

One of the greatest living pianists is Ignace Jan Paderewski. Of Polish birth, he expresses in his music the sufferings and turbulent emotions of his nation. Not in vain have been the passions of his life. His music as it pours out to us from the piano is alive with human experience, at times full of fire and violence, again as tender, delicate and pleading as the cry of a most sensitive soul. Paderewski is a master of the piano; he speaks to us through his instrument.

The true aim of piano technique is the production of tones rich in timbre or color, and which flow from the piano as smoothly and as naturally as do the notes of a singer, no matter how difficult the passage that is being played nor how rapidly the tones follow each other. This is not as easy as may be imagined, since the tones of a piano are produced by the percussion of the hammer against the strings, and a gliding, rippling effect depends wholly upon the player's touch and his manner of using the pedals. When the singing and a perfect control of the tone-shading have been achieved the pianist demonstrates his control of the instrument. There was a time when playing a rapid running passage with ease, accuracy and agility was considered sufficiently musical to satisfy the most critical hearer, but now good playing demands that the tones slip into each other so seemingly effortless that they produce the liquid effect of a stream flowing over a smooth bed.

The fingering of the keys, the position of the hand and the forearm must be carefully studied to produce the correct effect. As to the manner of holding the back of the hand not all musicians agree. Some contend that the back should be elevated, others insist that by depressing it you produce the best tones. Everybody knows that the pedals of an organ play an important part, but the pedaling of the piano is just as important, for, by the skilful use of the pedals, a good pianist produces blending, volume or diminution of tones such as would be utterly impossible without them. And every musician depends upon his use of the pedals almost as much as upon his touch for the variety of tone-color he wishes to produce.

Aside from tone-color the rhythm of a composition must be well defined and equally well sustained. This is done by accenting certain parts of each measure to bring out the rhythm of the melody. Under no consideration must the player allow the rhythm to lapse; no matter how dainty or impassioned the passage, the ear cannot be offended by the disappearance of this accent or by it being misplaced. Nor may the accent be pronounced, it dare not appear in the harmony as a blow on the key, but it must fall upon the ear with the same unconscious rhythmic effect that the waves of the ocean produce as they break in regular succession upon the shore.

Next thing to consider is the temperament of the player. This is a subtle something which when present makes even a lesser musician a genius, but which when lacking makes the most brilliant performance merely an intellectual feast that fails to touch the emotions. Schumann was brimful of it, Liszt lacked it entirely. It is the soul of the artist, without which no musical composition can stir the emotions of the hearers. It is that which distinguishes a Rubinstein from a Liszt. It is that in the music which talks to you in a language you understand, it warms your heart and you feel a kinship with the musician. Temperament is not an impulsive outburst of emotion, that is sentimentality or passion, but it is the expression of emotions under the guidance of the will. An artist never loses self-control, his emotions carry him along, but his mind directs their course.

Nor should one who is trying to learn to appreciate good piano playing be misled by a mere diversity of expression. Playing a great number of variations of the same theme, or playing them with a great range of expression, does not constitute great music unless these different movements bear a fitting relation to the whole composition and add beauty and character to they proceed.

Before attempting to appreciate a piece a student should look at his program to see what is the nature of the composition to which he is to listen, whether it is to be a dance, an overture, or a sonata; for each kind of composition stands for a different musical idea, and he will not understand the composer unless he knows something of the different forms of musical composition. Moreover, he must study the age of each composer to know what style of music his generation stood for. It would be unfair, for example, to look for the same fulness of tone in a Bach sonata that is expressed in one by Rubinstein. Rubinstein had the advantage of Bach's experience augmented by the experience of generations of musicians since Bach's time. Add to this the difference in the instruments for which these various pieces were composed and a great difference in composition must be inevitable.

Besides his knowledge of music generally, the performer has in each individual piece before him the various marks of expression which the composer wrote there himself to indicate an acceleration or diminution of speed, to mark a staccato or legato passage, to indicate piano or forte as these best suited his idea. But these signs are more or less to be regarded as the mechanical side of the music and they do often produce catchy results, but only when the intellect has so grasped the contents that the masterpiece speaks to us with something of its original power can the work of the performer be called art.

An untaught listener should not allow himself to be carried away by the brilliancy of a player. Rapid, rippling tones, difficult, intricate passages succeeding each other with marvelous skill may dazzle for a while, but the ear soon tires of them, and after the performance the memory retains only a recollection of musical display, for the sympathies had not been touched. The touching little love story told in Beethoven's Sonata in E minor leaves you with a sense of delight in love's completeness, and Schumann's "Träumerei" will never lose its hold on people's hearts.

"The Revolutionary Étude" by Chopin expressed his feelings and those of every Polish patriot at the news that Warsaw had been ransacked by the Russians; and a trained listener hears here expressed fierce indignation, desperate but vain struggle, and finally wrathful despair. Now unless you know something of the life of Chopin, or of this period of Polish history, this picture may not be suggested by the music. But if the player plays this piece in such a manner that your mind and emotions catch the tones of rage, struggle, and agony, he has given you tone-language which you have understood, and which shows that he himself felt what Chopin did when he wrote the music or he never could have communicated these feelings to you.

The pianist's music should be eloquent, his playing should be such that it produces in the hearer a happy, cheering frame of mind, and the recollection of his playing, long after the performance, should always be a stimulating delight. Some pianists can by their marvelous touch and wonderful expression so carry away their audience that the applause cannot be expressed by mere clapping of hands, they rise to their feet and in joyous shouts cheer the player at the close of a soulful, masterly piece. Imagine the effect this praise must have upon the player! Does not he feel more than repaid for all the weary hours of practise that were required before he was able to produce the effect? Too often the audience fails in appreciation because it is not well enough informed on music to understand the composition, and the deserving musician becomes disheartened and discouraged. If the audience would but try a little bit to understand just the simplest elements in music a concert would gain doubly its value. It would mean more to the hearer, his intellect and his emotions would enjoy a few pleasant hours, and by his intelligent applause he would more than reward the great musician who had poured out his human soul in his playing just as truly as the bird pours forth his bit of soul in song. An audience should be critical, it should not by misguided applause encourage a poor musician, nor chill by its freezing calm the ardor and genius of a master musician.

It is difficult to tell just what are the leading characteristics that distinguish one composer's music from that of another, because each form of music requires a certain form of expression, yet by careful study one can learn to distinguish between a sonata by Chopin, and one by Schumann, for example. There is of course in every composer as in every man a certain something which we call his personality and which must find expression in his music, and which adds charm to the composition just because it does give it individualism and makes it different from what has gone before or will follow. 'Tis only because such great men as Bach, Beethoven, Schumann and Mozart have endowed their music with their personality that it is great, for these men had great souls, and we are uplifted and enamored every time we hear their music.

Haydn was wont to choose or invent his theme, as the case might be, and then with exquisite taste and expression work it out through different related keys, getting marvelous color and variation by means of his wonderful chord formations which he understood so well.

Beethoven is perhaps the most soulful of all composers; he had a way of touching the heart, and his sonatas speak more easily to the untaught than do those of any other composer. Beethoven did not aim for brilliant effect, to him the soul of the composition mattered more than its technique, and it was he more than any one else who brought music back to its primitive use. He made it an expression of the inner man; with him music was an affair of the spirit rather than an intellectual utterance. And we feel this when we hear his music. Everybody knows Beethoven's "Moonlight Sonata;" it is as realistic and yet as dreamy as a moonlit night, the atmosphere of the music as charming, as mysterious, as soothing as that which the composer's music describes. As the tones fall upon the ear, the fancy is aroused, tender memories flit through the mind, the tones swayed by light breezes cast fitful shadows all around, and the moon casts her pale light like a benediction over a world at peace and happy.

The composer who perhaps best of any combined soul, symmetry of development and technical perfection was Mozart. There is an individuality of style about Mozart's compositions which can never be mistaken. Apart from their innate beauty the artistic strength of his compositions consists in their perfect adaptation to the situation which they are designed to describe. Every note fits into the little place intended for it, and blends so harmoniously with the others with the result that no trace of indecision or looseness of design occurs in any of Mozart's compositions. There is such finish, such brilliancy, such beauty, such truth in his work that his skill has never been surpassed. Boundless wealth of melody governed by refinement of artistic taste creates such a charm that it casts its spell of beauty over every one who hears his music.

Schumann excels in his songs; their beauty, grace, and melody are so sweet, so tender, so true to the heart's best emotions and longings that it is doubtful if any composer will ever equal him in this field. You glance at your program and when your eyes fall upon the name of this composer, and he is very much loved, your heart leaps with anticipation, for you know some pleasurable moments are before you. His little songs adapt themselves so readily to the mood they express that vocalists and pianists revel in interpreting them. Schumann's charm will never grow old while the world loves. His choral, orchestral and opera music are written in a most finished style, and his piano music is the highest type of excellence and beauty. Schumann was a great lover of literature, and little musical bits such as his "Carnival" plainly express the intellectual and emotional results of his love for romance. He does not express all his fancy has to tell, he merely suggests its terms and leaves our imagination to fill in for ourselves. Schumann never becomes wearisome, he remains almost tense in his expression, but he gives free rein to the most dancing flights of imagination.

In Chopin's music we must recognize his nationality, for it expresses the high strung passion of the Polish nation which with indomitable courage has struggled through years of sorrow. His compositions include a great many mazurkas, waltzes and polonaises, expressing the national dance music of his country, and even these are sad. Although so much of his music is of a national character, it expresses his own individuality, which was melancholy to a rare degree. Chopin is out of his element in long compositions, his intense sensations were too pronounced for sustained effort, so we find his music expressed in dances and short compositions. His preference was for the minor key and in beauty of expression and harmony he remains the unrivaled master of the tender tones. Chopin's musical genius opened for him the best circles of Polish society, a society at that time unrivaled in Europe for its ease of intercourse, the beauty and grace of its women, and its liberal appreciation of artistic gifts. These impressions of refinement have left their impress on his music, his works are full of the most subtle touches of sentiment, they breathe refinement and artistic temperament. As a pianist the delicacy of his touch, the melancholy tints of his tone-coloring, the excellent purity of his phrasing, made him a great favorite and a musical idol. His preludes are quite indefinite in form and character, producing an unfinished effect, nevertheless they give us brief glimpses of wonderful soul pictures, breathing poetry and passion. His nocturnes are, as their titles express, short, dreamy, contemplative melodies that satisfy the emotions without producing any strain upon the intellect.

Liszt is without doubt the composer who appeals but slightly to the thoughtful concert lover. And small wonder, when he himself in discussing the essentials of good music said: "Three things are necessary to make a great pianist: first, technique; second, technique; and third, technique." And this technique in one form or another is what constitutes the greater part of his compositions. The music reflects the man back of it, and Liszt's music is cold, polished, brilliant, but it does not touch the heart. His works astonish us by their complexity, they reveal the technical resources of the piano better than those of any other composer, but they dazzle while they do not warm you. A skilful technician can produce marvelous effects with the material in a Liszt "Rhapsody," but it takes a soulful player to interpret a Schumann melody, be it ever so simple. It seems to be the custom with many who plan popular concerts to close with a Liszt number; the effect is taking, for even though Liszt was willing to sacrifice some of the soul of art for the sake of display he succeeded always in creating an effect. And the concert-goer who leaves the hall with the last notes of a Liszt production ringing in his ears, soon forgets their fleeting impression; he has had, as it were, a salon acquaintance with the man but has caught no glimpse of soul beneath the outward formality of a society acquaintance.

It is impossible in so short a chapter as this is to try to give any adequate idea of the ground we have tried to cover. But it is hoped that these few suggestions will help you to a little better understanding of a concert program or a single piano selection.

THE VIOLIN.

Next to the piano no instrument is more popular nor more generally abused than is the soulful violin. It is the most beautiful of all musical instruments, its tones most nearly resemble the human voice, and in the hands of a master it speaks with an honest human tongue. And yet it is rarely well played, and small wonder, when one understands that in violin music more than in that of any other instrument the whole character of the production depends wholly upon the performer. His lightest touch, the slightest shifting of the fingers of his left hand, or the most delicate pressure of the bow are recorded and affect the quality of the tones he produces.

Let us look at the piano and then at the violin and see how the tones of each are produced. The keyboard of a piano consists of white and black keys; each key, as you press down upon it, sounds one distinct tone, and it sounds this same tone every time it is struck, whether the key is responding to the touch of a master or a novice; of course, the key may be struck sharply or gently, producing then a bright or a softened tone, but the pitch of the note does not vary; the white key just below the two black keys is always C, no matter who is playing. Now look at the violin: four strings of different pitch stretched across a little bridge form the whole instrument; not a key or a fret on the neck of the violin to indicate a single tone! So the entire keyboard lies within the imagination of the player, and on his ear, and skill in fingering, depends the accuracy of the pitch of all the notes.

The musical scale, as we know it, ascends and descends by steps and half steps only. The pianist sounds the interval of a step from C to D on the white keys, and a half step from the white key C to the black key just above it. But the violinist may by unskilled fingering or an untrained ear produce quarter steps or eighth steps if he does not touch the string exactly; and since our ears are accustomed to hearing no intervals less than the semitone, it can easily be imagined that any interval smaller than this must produce an awful discord. Thus the violinist has a far greater range for tone production than has the pianist, but his liability to produce discord is proportionately greater. On the other hand, the music of the violinist is almost as much a part of himself as is the song of the singer. Every note his violin utters is as accurately an expression of his idea of that tone as are the notes of the vocalist. Every tone should be finely and distinctly produced, there should be no blurring of the rapid passages if the music is to please the ear.

But the quality of the tone depends upon the bowing; the art of handling the bow is always spoken of as the touch. The bow, a very simple little contrivance, becomes in the hands of a true violinist such an implement of music that the notes of the violin as they seem to come out from under it, call tears of joy or pathos to the eyes as easily as do the strains of the human voice. The slightest movement of the arm or the wrist, the lightest pressure of the elastic bow upon the strings is responded to immediately, and the quality of the tone is the result. As the quality of a pianist's notes depends upon the delicacy of his touch, so does the character of the tones produced on the violin get its color entirely from the manner of bowing.

The tones produced on the violin depend upon two things — the stopping and the bowing. When a violinist presses one of the fingers of his left hand upon one of the strings to produce a note he stops the string, and when he draws his bow across that string, producing that sound, he is bowing.

From what has already been said it is readily seen that the art of "stopping" constitutes the foundation of violin playing. When one has learned to handle his fingers in such a manner that they will stop at the right place to produce the desired pitch he has provided a finger-board for his violin. The accuracy with which the strings are stopped constitutes the purity of the tone, and the rapidity with which the fingers are placed as the hand passes back and forth over the strings expresses the skill of the performer.

In no other instrument is the relation between the musician and his instrument so close as is the relation between the violinist and his violin. If the bow is drawn across the strings correctly a mellow liquid tone seems to flow from under the player's bow, the tones glide smoothly and harmoniously into each other, there is no scraping of the bow, no thumping on the strings, no conscious change from one string to the other. Tucked under the player's chin, within the embrace of his left arm, his ear close to the body of the violin, he listens with all his soul to the responding tone as his right arm brings the bow lovingly to the strings. Between the master and the violin exists an intimacy not found with other instruments. Can such a relation become possible with a stately organ or a grand piano? The horn, the flute, the oboe are held away from the player and he blows into them, he does not coax the sounds out of them with a loving, tender touch.

The voice of the violin is the richest of all instrumental voices, its tones are clear and penetrating, and for concert solo work a violin whose range is from middle C to the C in the treble three above it is most general in use. The compass of a violin is increased by the use of harmonics. These are the overtones, or partial upper tones, and add color to the simple tone of the note itself. Whenever a string gives forth a musical note it vibrates, not only from the place at which it was touched, but also in fractional parts of the strings, producing thus overtones or partial tones. Violinists know that by touching the strings very lightly with the fingers of the left hand the overtones can be produced without sounding the fundamental tone, and thus an ethereal tone, mysterious and intangible, is added to the heavier body tones. Such effects are called by the Germans flageolet notes. These fairy-like tones most fittingly form the concluding measures of the prelude to Lohengrin.

The tone of a violin should always be sonorous, it must have life and body no matter how tender or delicate. By listening carefully you will observe that some violins have a large tone, others a small one. This is due to the difference in the instruments and in the players. A new instrument whose parts have not yet learned to blend with each other will produce a larger but rougher tone than an old violin. But by skilful bowing a good violinist can make an old violin produce a large tone and he gains in addition the much desired mellowness of tone that an old violin gives.

It is a well-known fact that violins grow better with age. Oliver Wendell Holmes tells us that a violin is made of fifty-eight different pieces, each a stranger to the other, and it takes a century more or less to make them thoroughly acquainted. "Moreover, the wood is still green, and only after a long drying process does it become tolerably resonant. A violin is handed down from one generation to another or from master to pupil, and in its progress down the centuries it has voiced the magic of ancient masters till the flying fingers stiffened and the bow hand lost its power. It is then bequeathed by him to some passionate enthusiast who makes it whisper his hidden love, or cry his inarticulate longings, or scream his untold agonies, or wail his monotonous despair. Passed from his hand to some cold virtuoso it perhaps slumbers awhile in its case, but comes to life once more and rides the stormy symphonies of royal orchestras beneath the rushing bow of their lord and leader. And so given finally into the hands of its present owner it pours forth under his touch in sweet and mellow tones all the harmonies which have kindled and faded on its strings."

The bow arm should be free and limber, all its movements muscular enough to execute a long sustained difficult passage without the slightest unevenness in the quality of the tones; and the wrist must be flexible and strong so that the daintiest touches may not be marred by a harsh, uncertain touch. Passages in which several notes flow from a single stroke of the bow require great skill, while those in which each note is made by a separate stroke of the bow require a free, firm arm motion. A good player knows that by playing close to the bridge where the strings have little freedom for vibration produces a nasal tone; playing a little farther away from the bridge adds power to the tone, and it is sometimes harsh. But as the bow moves up toward the finger-board, the tones become less powerful and gain in mellowness. The soft, suggestive tones of a violin are produced by playing over the finger-board. Masters who understand the tone qualities of their violins combine the manner of bowing with these different positions on the strings, gaining thus a wide range of variety of tone character, and the individual tone coloring of each violinist is the result.

Some of the effects to look for in violin playing are the tremolo, which is a rapid alternation of up and down strokes of the bow. It is used to express great agitation of feelings, whether from fear or sorrow or joy. It is usually played not far above the middle B flat. It is passionate and fiery when played loud on the middle of the first string, but becomes dainty and mysterious when played in a higher position. The salto, an effect peculiar to bowed instruments, is produced by bounding the bow on the strings; this produces a very lively effect and is used with good results to imitate leaping motions of a body as opposed to the usual singing voice of the violin. Again for dramatic purposes the tones are produced by drawing the wood of the bow across the strings. This manner of bowing produces a weird effect. These strange tones heighten the uncanny effect in a witches' scene, such as the Walpurgisnacht on the Brocken in "Faust," or to depict the presence of an evil motive at the unguarded moment. Wagner uses it with great effect to portray wicked joy in some other person's misfortune, as in the case of the unscrupulous dwarf, the smith mime in the story of "Siegfried." Perhaps none of the different effects produced is such an excellent test of good bowing as is the staccato. If a sustained staccato is played distinctly, evenly, but with a light firm touch, the player is said to have splendid control of his bow. One of the most common methods resorted to in playing for effect is the pizzicato; this is done by plucking the strings with the fingers, and the result is a series of short, stiff tones much like those of a banjo. Very dainty, telling effects are thus produced; they may be used to add mystery to a light passage. such as a dance of goblins, but owing to the lack of depth of expression they are never employed in large or serious passages except very sparingly. But where they are used they are usually chosen with thoughtful purpose and are used very advantageously.

When a violinist wishes to produce a subdued, muffled effect, such as is desired in mournful passages, or if he wants to add an air of mystery to a lively passage, he uses a little contrivance called a sordine or mute. This little damper clutches the bridge as it is placed on the strings, checks the vibrations and produces a muted tone.

The violin like the piano affords excellent opportunity for the display of technical gymnastics, but unless the soul of the player speaks through this intricacy of sound the tones produced are not music but rather an acrobatic performance, disappointing of course, because when you come to a concert you come to hear the music and not so much to see the manner of its creation. And like the human voice, capable of touching the heart of the listener only when the heart of the singer has lived and loved, the violin in the hands of a master becomes divine.

THE ORGAN.

The organ has been called the king of instruments, and it justly deserves this title. Large and majestic in form, complicated in construction, its very presence inspires awe. The peculiar pitch and quality of its tones thrill you through and through, and its voice predominates over that of all other instruments, and in its full strength it overtones even the largest full orchestra. Its tones are clear, and it produces a fulness of chords and purity of harmony such as no other instrument is capable of. The full organ is overpowering in its grandeur, and gives a totally different effect from the full orchestra, which is richer in tone-color but which lacks the vastness of tone expressed by the organ.

The organ is a glorious instrument when it responds to music that is composed for it, but it is a big mistake to expect from it the human quality of tone that can be expressed on a violin, piano or flute. The stop called the orchestral flute is a perfect imitation of the tone of a flute, but this stop is utterly incapable of giving the effect of a flute solo when played by human lips and directed by the intelligent touch of the fingers; the same is true of all the other orchestral stops. The beautiful oboe solo in Bach's Christmas Oratorio, intended to be played on the instrument itself, becomes cold and powerless when produced on the organ. Neither can the peculiar quality of the tone of stringed instruments be produced with success upon the organ. An imitation is of course there, but it must be looked upon as resembling a stringed tone, not a substitute for it. The tremolo of the bow can be quite satisfactorily imitated on the piano, but becomes quite ineffective when attempted on the organ. The organ must not be made an imitative instrument, it must maintain the dignity of its own character and must be treated as an individual instrument.

The concert-room organ differs from the church organ in being made with more orchestral stops; its solo stops are made to imitate flute, clarinet and other favorite solo instruments. And because of this construction many concert players choose for their recitals such compositions as were originally intended for an orchestra, claiming that the organ can produce these symphonies, overtures and dance music just as effectively as the instrument for which they were intended. But this is a mistake, for we know that the organ production, while clear and pure in tone and correct, lacks shading and expression such as only instruments under the immediate control of the player can give. Fugues, sonatas and oratorio music belong to the stately organ.

An organ can, however, be used to very good advantage, in connection with an orchestra, by being treated as a separate instrument and having music especially designed for it, or by being used as an accompaniment to swell the volume of tone or to fill in the weaker parts. The overture to St. Paul may be cited as an illustration: here the organ plays the opening choral and is then silent, the orchestra taking up the theme, and later it bursts in as the full orchestra reaches a fortissimo with wonderful effect. While the modern organ offers the greatest opportunity for ennobling artistic effects its use is often perverted to express a sentimental struggling for effect. The modern organ with its increase of facility in the mechanism makes it possible to produce really ravishing effects without a great amount of skill. And this is to be deplored, since it has given rise to much dilettanteism in organ playing. A player draws out a solo stop that he fancies, then on a second manual he draws accompanying stops and proceeds to run his fingers over the first keyboard without any attempt at phrasing, rhythm, or musical form, and by way of accompaniment adds a few chords on the second manual and an occasional harmonious note on the pedal. The effect pleases an unthinking listener, but it should not be called music, and such a performance is to be condemned. Or he accompanies his solo stop by a bass formed from the repetition of the same chord, six, eight, or twelve times to each measure. There is no meaning in a bass of this kind and its effect is amateurish in the extreme. But the true art of solo playing is by no means easy, and, like everything else that is worth while, it requires skill and effort and thought.

The kind of music that is best suited to the organ is that of the old composers. Each manual has planned for it its own distinctive part to play; the pedals do not merely fill in, supplying either an occasional deep tone or a regular droning bass, but every note arranged for them is a part of the harmonic whole and as necessary as the solo manual to an organic whole. The result is that the intellectual faculties are called upon in composer, organist and listener. It affords artistic enjoyment to all concerned, it is not a combination of sounds which affords childish delight to the unthinking and irritation to the scholar. The organ is so majestic, so dignified, that unless it is handled with the intelligence and respect due to its construction and power it offends the critic; it is not an instrument to be trifled with.

One of the frequent faults with organists is to hold the notes beyond their time value while a change of stops is being made. By doing this the player spoils the rhythm, and rhythm in organ music must be maintained. The rhythm of all music is its soul, its character, and without it music becomes monotonous and meaningless. The rhythm in a piano is maintained by the accent, but the organ is incapable of accent, and everything depends upon the time rhythm, the correct phrasing of the notes. The pianist has both the accent and the phrasing to help him express the movement, while the organist must depend for his rhythm entirely on his phrasing. By allowing the phrases to overlap the organist soon loses his own sense of rhythm and spoils his effects. One who catches the rhythm in piano or violin music is quick to catch it and to look for it in the organ. Rhythm is a quality some players lack entirely, they seem born without this sense, and the appreciation of it should be one of the first requirements of pupils.

No absolute rule can be laid down for the combination of stops. Every organist studies the composition before him to get its meaning, then attempts by mixtures of stops to produce the tones best suited to his thoughts. The quality of the tones produced on an organ depends greatly on the ear of the organist, his knowledge of the instrument, and the acoustic properties of the hall in which he is playing. Organists are delighted whenever they can obtain a good combination of stops, and are studying to this end continually. A musician sometimes tries for a long time before he discovers "just the right stops" to describe his idea of a certain tone-color or melody.

Good organ music can be best studied and appreciated by observing the music of eminent organists. Almost every city of any size has now some very good organs in her churches, and a great deal can be learned by going to hear some good musician play upon them. Because of its structure, which enables it to produce such a great variety of tones and of pitch, the organ is capable of arousing the emotions to their fullest power; but a trained listener will look for more than vastness of tone and emotional harmonies, he will look for some definite musical form, something that stimulates his intellect while it pleases his fancy.

THE OPERA.

The genius of poet, of musical composer, of instrumental performer, of impersonator, who is both actor and singer, of costumer and scene-maker, are all combined to produce an opera, and while the work of each is not equally important, each is quite necessary to a successful performance.

It is impossible in one chapter to give an adequate idea of the elements and essentials of the beauties and power contained in our greatest operas. Each opera must be studied by itself and for itself. If one goes to the opera for the purpose of spending an evening for a certain amount of pleasure, such as can be gained with very little intellectual trouble, he is usually content, if he but knows the story of the drama, to let his senses be satisfied and his emotions stirred by the music which is retelling the story he has read, and by the spectacle of scenery and of costume and the dramatic action of the various characters.

Nearly every one will know the story of an opera before witnessing it, but there is so much else aside from the main events, and the climaxes, and ultimate culmination in the text of a good lyric drama. There is no lack of books that profess to tell the stories of the most popular operas, but the plots are usually related in an unconvincing way, and those of us who cannot read them in their original forms must depend upon our imagination to interpret the text from the music.

An opera must possess some universal truths, some form of life, of emotions, and passions which all mankind can understand, for it is such only that the music portrays. The genius does not deal with the trivial unless beneath it lies some principle common to art and beauty. The opera which has stood the test of criticism during many decades is usually one whose inspiration for its music has been drawn from the poems or romance which is used as its text. Frequently the music surpasses in artistic worth that of the text, but it is only because the composer by his language has been able to express more than could the author of the lines, because, given the idea which was the poet's, it has awakened new ideas in the mind of the musician, and he has reached out into fields unknown to the poet. Quite as often the musician has failed to translate into successful tone language a rarely beautiful dramatic poem, either because the written or spoken words were such that they would not lend themselves to musical expression, or he has not understood the real purport of the drama.

But when words and music have stood the test of years they are both worthy of close study if one would gain all there is for him in a staged operatic performance. Music, however, always has a greater claim than that of merely interpreting some emotion, and in opera as elsewhere it demands serious and rational attention for its own special ideas as an art form. Some musicians refuse to place the opera on the same plane with music which is self-sufficient, abstract music, in which its powers are centered upon its own creations without dependence upon any certain emotions that may have been chosen for illustration. But, nevertheless, music has a function in expressing those human emotions which lie too deep for verbal utterance, and it is plain that the recognition of this function led to the invention of the opera. There are shades of emotional sensations which music can reach and can convey with wonderful definiteness as no words have ever done. It does not suggest in itself the manner in which the emotions are to be worked upon, but the libretto, the before read story, the program, or the acting and the stage accessories direct the emotional faculties, and then the force of feeling is conveyed with marvelous power by the illustrative music. The composer through the agencies of orchestra and human voice has at his command a language that can carry to the hearer's mind every shade of emotion from the merest hint or suggestion to the highest pitch of passion. Because music is capable of supplementing, of enhancing and making more potent the written thought, it surely makes a high art form of opera in spite of the criticisms piled upon it by the purely intellectual and hence narrow class of musicians.

The popularity of the opera is almost conclusive proof that it is the meaning of music more than any other quality that excites the admiration of the general public. Art is, or should be, for the people, and while not always a discriminating audience yet there is always good reason for catering to a certain extent, to the taste of the larger audience. It is unfortunate that there is not as great intelligent interest taken in opera as there is in other forms, such as orchestral and choral music, for the general public, we must confess, does not take as serious a view of a staged performance as their ability of appreciation allows. As the taste of the audience in attendance must for pecuniary reasons be catered to, every manager of an opera company studies how to please those who do not come for any real musical enjoyment, and has long used as his excuse for putting the operatic stage to the use of almost worthless performances that he was giving the public what it demanded. If this be true, then present conditions point to a hopeful outlook for the operatic stage.

To understand the difficulties attendant upon the presentation of opera one would do well to acquaint himself with some knowledge of its history and also of the early histrionic efforts, for from the old Greek tragedies sprang the lyric drama, and from that, which is their real foundation, developed the several forms of opera as we know them today. The history of opera is much more easily traced than that of other musical forms because it is one of the latest developed.

Revolutions in operatic history have arisen and been completed in the course of a few years and its growth and its changes have never been slow. Of equal interest with its development is the knowledge of the demands and the change of taste of the public. Today the presentation of a Wagner opera secures a full house, whereas but a comparatively few years ago Wagner's maturer works were considered by the general public either entirely unintelligible, or intelligible only to the few who had devoted years of study to the unraveling of their mysteries.

Reputations founded upon staged musical productions have been quickly made and often as suddenly lost; and even composers themselves alter their style and methods so materially that their earlier works bear scarcely any resemblance to their maturer masterpieces. At one time the framework of the opera consisted of a series of arias, or airs, connected by a recitative which carried on the story and action while the arias sustained the vocal beauties. There were usually three acts, each scene of which ended with a solo; and each character, of which there were generally six, was allowed one of the five kinds of songs; no character was allowed two in succession and no two airs of the same class could follow one another. The principal airs had to end the first and second acts, and in each of the second and third acts there was an accompanied recitative, a difficult air, and a duet by the hero and heroine. Occasionally only, there were choruses and trios. The five kinds of arias included first those of slow, quiet movement which afforded a chance to the singer to show his power of vocal expression, for sentiments of tender pathos usually made the text of the song; then another of slow movement and containing notes of greater time value affording the singer opportunity to display the sustaining power of his voice; the third class was adapted to a variety of sentiment and stood between the aria of pathos and that of dignity and grandeur; the fourth was a declamatory air in which strong emotion and passion were expressed; and the last and fifth class was used almost solely to exhibit the singer's execution. All songs were classed under these five. This was the form followed during part of the Sixteenth Century, but in the course of time the structure was changed by the acquisition of new forms in the way of concerted pieces and finales.

New ideas were carried from one country to another, new resources of harmony, variety of modulation and orchestral accompaniment were added, and the old model became greatly changed and for the better, as the opera gained in variety and animation. Then came an effort to bring words and music into a closer union than was customary, and finally the orchestra developed into a means of acting as something more than a mere support for the voices; it helped to interpret the mood of the scene. The isolated pieces of the early opera were fused into a more complete work of music, and in time the music became more potent in telling the story of the opera than were the words.

Opera always has been, and is today, a mixture of musical forms, though the changes in public taste and of method of singing and of orchestration have brought a great variance of the operas of different musical periods. As we have noted, the public has been very fickle in regard to its likes and dislikes of the musical and dramatic phases of opera. What pleased and called forth great enthusiasm from music-lovers of another generation may rarely be heard to-day, though as we have said the outlook for the opera is a good one, for the past few years have seen a revival of some for the time seemingly forgotten operas, and the manner in which they have been greeted and the intelligent appreciation given them is proof that a really worthy creation does appeal to our American audiences, and as years go on there is every reason to believe we will demand the best oftener, and the operatic managers will no longer have to complain of lack of public support.

In one respect audiences have for years seemed quite satisfied to leave the opera as it has stood for so long, and this is in the matter of language, for nearly all our grand operas have been presented in a foreign tongue, just as they were two centuries ago in England. It was there that they attempted for a brief time to introduce the mother tongue into Italian opera, and the result was a sad one, as only English singers could use it and at least half of the opera company was always composed of Italians, who continued to use their own language. This indifference to the use of a foreign tongue, which we exhibit, seems to prove that it is after all the music that we want, and with an understanding of the story we are content to enjoy its musical setting and let our imaginations supply the want made by a text in a language we do not know. The wonderful orchestral passages alone tell us of the joy, the grief, the sublimity, or triumph of the drama; they anticipate for us, and stir the emotions as no words can do, and the greater part of an audience makes no effort at understanding the lines even though sung in a familiar tongue. But as before said, it is a matter of regret that we fail to take a greater intellectual interest. It is the opinion of many that opera as a general rule should be given in the language of the country in which the story takes place, but though this might be ideally perfect for trained hearers, it presents great difficulties in the way of its realization and is practically unwise for ordinary operatic performances.

Though England made sad havoc at its earlier attempt, it is today making some progress in forcing the recognition of English as a possible means of vocal expression, by occasionally employing it in opera at Covent Garden.

It was during a revival of learning, when classic tragedies were receiving more attention than had been given them for a long time, that the Italian opera came into existence. These tragedies had been musical throughout in words and lines, and in an attempt to bring about a closer union between dramatic poetry and music, the artists of the close of the Sixteenth Century saw that there must be a change of their music. Church music was then at its highest development while other forms had been somewhat neglected, so they were obliged to invent a new style. Except in the choruses they abandoned all polyphony in which there was an interweaving of several melodies, and created a kind of musical declamation. Observation of vocal inflections, such as are produced in speech caused by different emotions, was their guide in choosing their tones. We now consider their music monotonous, their melodies stiff and formal, and yet within their invention lay the seed of a new form of music. The vocal solo, such as had never been known to the ecclesiastical composers, developed from it, and also the declamation, deriving its inspiration from the text. The recitatives were fluent and the melody made to conform to them so as not to interfere with their poetic flow. In this way the Italian

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opera was invented, and, while falling far below its purpose, it did much to free music from the formalism which was threatening to deaden it, and to give the impetus to other musicians of other countries to further develop this style of composition.

The dry form of recitative, such as used in early operas, is now only occasionally found; in the greater number of operas we find a fusion of the old aria and the formal recitative. The purpose of the recitative is to promote the action of the drama, anticipating events and emotional states which are dwelt upon in the set music pieces. It acts as a kind of transition and makes the change from dialogue to song less abrupt. It is in itself tiresome, for it is neither speech nor music but gives one the feeling of speech which may at any moment burst into song, and if prolonged becomes deadly monotonous and loses the interest of the audience in the entire scene in which it appears. For this reason some of the Italian operas, to an American audience which either cannot understand the language or is not desirous of following the lines, is often wearisome. Of course, much depends upon the taste and ability of the singers to bring about the right effect in a recitative, and in a comic opera, spoken with such vivacity as the Italian language permits, it fills its purpose effectively and without becoming monotonous. It makes use of only one element of music, that of pitch, and it lacks melodic structure and sustained tones. However, the accompanied recitative has its place in the operatic form, for it often prevents a dropping into speech and so preserves the musical idea throughout, making a real lyric drama instead of plunging us from one artistic sphere into another. It is true that some of our great opera singers do make use of the spoken word for great emphasis by contrast, but on the whole it is not considered artistic and is for many a dangerous experiment.

The merging of the aria and recitative reached its highest development with Wagner, and the name arioso was given to this form of musical conversation or dialogue. The orchestra had become such an all important factor of the opera, having asserted itself as an element of independent value, the simple aria was pushed to the background and the accompanied dialogue, combining song and musical speech, became capable of portraying the passions and moods of the play as the aria never could and prevented the monotony of the recitative. It was Wagner who preached and exemplified the dramatic idea by means of his writings and his operas, and the most popular Italian and French operas today are those composed by men who benefited by his ideas until opera has become something more than a chanting or singing of a lyric poem, until every part of it tends toward unifying it as a musical drama. The instruments formerly played but a comparatively small part, they were used as supports to the voices, occasionally for introducing new themes, but seldom taking upon themselves the duty of telling in their own way the tragedy or comedy. Today the orchestra plays quite as important a part as any of the actors, and we depend largely upon it to convey to us the mood of the drama. With the development of the orchestra, brought about by the arioso, came also new ideas in the way of singing.

The problem of the opera singer is often a difficult one to solve, for he must be both actor and singer, and yet nearly all the greatest singers of the world have been opera singers. Because they have been in the majority, and have been in the public eye more than the concert singer they have set the standard of artistic singing.

The opera singer has so much to contend with besides his singing, aside from the mental exercise of dealing with musical difficulties, for he must adapt his expression to the poetic text and act the part of the character. Until the dramatic element became so important a one in the opera only beauty of vocal tone and flexibility were required for emotional expression in singing. The real character of the stage hero was not taken into account, the actor did not act but sang with a few oratorical gestures, such as the Italian would use in ordinary speech. Later as Italian opera further developed and the music became more dramatic and scenic, there was a greater opportunity for differentiating and specializing the emotional quality, and with it larger scope for dramatic action. More is now required of the opera singer; he must not only sing well but dramatically. His professional work has become greatly complicated. Musical structure is more complex, and instrumentation more brilliant, so that often the greatest stress of vocal effort is required of him to make his voice carry the melody over the volume of sound which a full orchestra produces. We also ask that he be a good actor. We are not content to have him only vaguely know the principles of histrionism. The public demands have doubled his intellectual and physical task, and we ask a highly specialized, dramatic impersonation of our opera singers.

The operatic stage has offered us prima donnas who have sung wonderful melodies, full of trills and scales and florid ornaments, who have awed us by their marvelous gymnastic vocal feats void of all feeling, and who have shown an entire lack of understanding of the character they are supposed to impersonate, but, thanks to German influences, opera has never for long been kept from its original purposes. Music for the drama should be a means of dramatic expression. The greatest singers make their special art subservient to the larger purpose; they make their powerful appeal to us because their thought and attention and skill are given to the study of effective elocution, to dramatic truthfulness, and delineation of character, as well as to mere voice utterance.

In order that the singer can attain the best results, it is, of course, necessary that the music be in a sense subordinate to the text in which the dramatic idea is expressed.

As we have said, the music may often express the thought of the scene even more dramatically and convincingly than any words, but it does it only because the composer has thought in tones and melodies the same thought as is found in the poet's lines. The music of an opera, because it speaks an universal language, raises the drama to a higher power and supplies the emotional life.

As chorus singing is treated of in another place in this chapter, we will not dwell here upon the requirements of the operatic chorus, for all that applies to any large body of singers applies to the chorus in a drama, and added to these requirements is that of some histrionic ability. In fact, every phrase of opera demands separate and intelligent study. The music of each grand opera can be appreciated only after repeated hearings unless one's ear is acutely trained and one's intellectual grasp of themes and counter-themes is rare, and his emotions truly and quickly touched, so that he can recognize the various motives as they appear, and can feel their relation to the mood of the characters of scenes they portray. The text but gives the idea, sometimes rather baldly, but the music expands upon and elaborates, until it makes grander and greater a lofty sentiment, or shows the true baseness and grossness of an unworthy thought or emotion. One often comes away from the performance of a truly great opera feeling that his intellectual and spiritual self has grown in the space of a few hours, for by means of beautiful human voices and marvelous instruments, the composer has expressed all that he, the listener, has in a vague way felt, but he has lacked the means to put it into any language, and he is grateful to the artist who has spoken for him.

CHORUS AND CHORAL MUSIC.

The range of choral music is very wide, including within its scope the different kinds of vocal societies from the church choir to the enormous chorus of hundreds of voices, such as characterized our large May festivals.

Not everybody possesses the skill or the technical training necessary to play upon an instrument, but every normal human being possesses some sort of voice and finds joy at some time in his life or under certain circumstances in voicing his moods or his thoughts in song. And possessing within himself the power to produce song, no matter whether the voice be harsh and unmusical and the ear untrained to strike or preserve a correct pitch, man grasps eagerly at vocal music because he understands it in part anyway, and therefore he enjoys it.

'Tis said a nation may be known by its songs; and it cannot be denied that good music, like all good art, is the expression of refinement in an individual or a community. Next to one's ability to produce good music is one's capacity for enjoying good music. And there is no better or more certain way to learn to enjoy good singing than to join some choral society and feel the effect of the music upon yourself as you learn to express your emotions in song. Schumann knew this and he gave this advice to his students: "Sing diligently in choirs, and choose especially the middle vocal compass, for this will make you musical."

Song is the readiest and simplest medium for expressing the emotions, and no community is so small that it does not boast of some sort of singing society. No expense need be connected with it, neither is a large number necessary to its life; all that is needed is a common love for music and some one willing and able to take the leadership. Some of the finest choral societies in the world exist in little towns or districts, and one of the best examples of excellent choral work are the splendid and large choirs that are so numerous among the Welsh miners. Their wonderful results in this direction are not confined to their native country, but here in the United States Welsh communities boast of some of the finest choruses in the country. Their love for the art is inborn, and their voices are rich in quality, and perfect in pitch; this is due to the training the Welsh people obtain in their national school of music called the Eisteddfod. It were well if every country did for its people what a Welsh community does; but more of this in our next chapter.

The earliest form of choral music, meaning music in which everybody can take part, dates back to the Sixteenth Century, where it had its origin in the hymns Luther composed for his church. He is said to have been the first to write metrical verses on sacred subjects in the language of the people, and his verses were adapted sometimes to ancient church melodies, and sometimes to the tunes of secular songs, and sometimes had music composed for them by himself and others. Before his time the text of the hymns was in Latin; but it was he who put the words of praise and prayer into the popular mouth, associating it with rhythmical music which aided to imprint the words upon the memory and to enforce their enunciation. His first collection of poems for choral singing was published in 1524, and it was soon followed by many others in North Germany. This idea of fitting sacred music to the voice of the multitude soon spread to England and France, and it became so popular that at the beginning of the Seventeenth Century, when a large multitude of people was collected at Paul's Cross to hear the preaching, thousands of the populace joined in the singing of psalms before and after the sermon.

The placing of the choral song of the church within the lips of the people had great religious and moral influence; and it has had also a great effect upon music as an art. For ever since the Reformation the musicians of Germany have employed their scholarship and imagination upon the working out of many of these old well-known tunes.

The hymnody of North Germany has for artistic treatment a strong advantage over that of England. In the hymns of the Germans the same verses are for the most part associated with the same tunes, so that whenever the music or the words are heard one suggests the other. While in England tunes were formerly and are often now composed to certain metres and not to individual poems, and thus we have the English custom of singing a certain tune for any poem of the same metre, and any poem may be sung to any tune composed for its metre. In England the tune is usually named for the place where it originated, as " Windsor " or " York," or by some equally unmeaning term; but in Germany a tune is usually named from the initial words to which it belongs, as Luther's well-known hymn, "Ein' Feste Burg" (a strong fortress), and consequently, whenever heard, whether with the words or without, it suggests to the hearer the entire subject of the hymn of which it forms a part. Manifold as they are, a knowledge of the choral tunes is included in the early education of every Lutheran and every Calvinist in Germany, which thus enables the entire congregation to take part. Compositions then, grounded on the standard tunes, are works of art, for they are based upon a common understanding between writer and hearer, and arouse sympathetic emotions.

The church cantatas are large church services with the accompaniment of an orchestra, and they are written to conform to the gospel text for the Sunday church service, or are written to embellish a religious festival. Each cantata stands therefore for a certain gospel text or else represents the theme which is appropriate to the day. A chorus is used to form the foundation of the music. But between the verses recitatives, vocal or instrumental solos are interspersed to comment on the text or to reflect upon the sentiment contained in the theme.

The most imposing form of sacred music is the oratorio. This class of musical composition, which ranks as the highest form of tonal art, originated in the Sixteenth Century. It derives its existence and its name from the meetings held by a Roman priest in the oratory of his church for the purpose of religious edification. This priest, San Filippo Nevi, desiring to make his religious teachings more effective, engaged his friend, Animuccia, to compose music to be interspersed among his discourses. This was in 1556, and the music orginially consisted of short hymns or laudi, the extent of which was afterwards enlarged; by and by the spoken words were replaced by singing, and ultimately this mixture of sermon and song took the form in which the oratorio is cast by modern composers.

The success of this music and lecture combination was immediate, and after the death of Animuccia, the great

Italian master, Palestrina, furnished the music. And right here it may be well to state the difference in the character of the music furnished by Palestrina and that furnished in later times by the German masters, Bach and Handel. Palestrina's music speaks with the mystery, the idealization of angels, while in the music of Bach and Handel the human passions of man are voiced.

The excellence of the material with which he had to work in England, lead Handel to assign the chief work of the oratorio to the chorus. And it is in these choruses that his genius shines best. In the mastery of vocal fugue Handel stands without a rival, his great choruses in the "Messiah" have never been rivaled, and 'tis due to their excellence that they live in our hearts today, live after a century and a half of constant repetition, and are as fresh and full of material for musical interpretation as they were in the days of their composer.

The chorus in the oratorios is used to serve various purposes; sometimes it is contemplative, as in Bach's "Passion Music;" again didactic, teaching a moral lesson; again it is used merely for dramatic effect to produce a climax, and again it is used for descriptive purposes to help tell the story. The words choir and chorus are used synonymously in this chapter, and they are intended to describe a group of singers ranging in size from a very small number, six or eight, to an enormous collection numbering hundreds. The size of the chorus usually depends upon the number of singers available and the volume of sound desired by the director. Choirs vary in character; there are male choirs in which all the singing is done by men; or women's choirs composed only of female voices; and mixed choirs, the most popular kind, composed of both men and women.

The male choir owes its origin to the German Männerchor, which was probably brought about by the German's love for sociability as much as by his love for music. Music for a male choir is usually written in four parts, first and second tenor and first and second bass. The music written for a male choir can hardly be said to be distinctive in character, and requires no special mention. But the effect of such a choir is usually very pleasing; the depth of tone, the peculiar timbre of the male voice expressed in four different registers, when blended in harmony, give great warmth of color and stir the emotions. And yet such a chorus becomes wearisome, for it lacks the contrast afforded by the addition of the female voices. The college glee clubs are another form of male choir. But these do not aim at artistic results and belong to a very popular form of entertainment, in which the catchiness of the melody unites with the cleverness of the text to produce the effect. Still another form of the male chorus is the boys' choir so extensively used in Episcopal churches as substitutes for women's voices. The effects produced by these boys' voices are limitless, since boys' voices may reach a remarkably high pitch, in notes that are clear and penetrating. Brilliant and emotional effects are produced by these choirs; but the judgment of the choirmaster should choose the correct kind of music for such voices, since it cannot be artistic to allow inexperienced boys to sing the music intended to portray the passions of maturity.

The female chorus, like the male, is usually divided into four parts, the first and second soprano and the first and second contralto. And like the male chorus, it, too, lacks contrast and becomes wearisome even before the male choir does, since women's voices are by nature thinner than men's voices and seem to lack foundation. One feels constantly as if he should like to supply the lacking bass. Some female voices are very low and form a sort of bass, but this low second contralto is carried down so low that the tones sound harsh and unnatural. Some beautiful effects are attained by women's voices, airy, graceful, sweet and tender tones, but they sound best as a part of a mixed chorus.

The ideal chorus is the mixed chorus, which consists of the soprano, contralto, tenor and bass, and in which each of these parts may be made to consist of a first and second, thus giving eight contrasting sets of voices, capable of volume, color and harmony, and where well balanced they form the finest instrument the musicmaster has to deal with. The large mixed choruses for festival music and great oratorios like the Messiah or Israel in Egypt now number way up into the hundreds, but it is to be questioned whether it were not better to diminish the number of singers and choose a little more closely with reference to the quality of the music and not rely so much upon the volume to produce the effect. But an advertisement of a chorus of one thousand voices looks well on the program and proves quite an attraction to the unthinking. For, since choruses must necessarily consist of amateurs brought together for the special occasion, they have but a comparatively short time for rehearsal. The only real advantage gained from such a large chorus is that it affords study and practise of music to all who participate in the production.

The large amateur chorus is a modern form of singing and is as old in the United States as any other country. Two centuries ago the performance of larger forms of choral music was done by professional choristers who were connected with the churches, theatres and singing schools. For this reason the chorus was naturally small. Choirs of hundreds and thousands, such as take part in large musical festivals now, were undreamed of in the times of Bach and Händel.

These masters of musical choral music as expressed in their oratorios, cantatas and passions never handled their matchless compositions with a chorus larger than an ordinary church choir. At the last performance of the Messiah which Händel was to conduct, but before which time he died, the entire number of singers was twenty-three, while the orchestra consisted of twenty-eight instruments. Twenty-four years later a choir of two hundred and seventy-five voices, and an orchestra of two hundred and fifty performed the same oratorio in Westminster Abbey. Since then the numbers have increased to enormous size. And when Bach submitted to the authorities a plan for a church choir to be formed from his own pupils he asked for twelve, and modestly suggested that sixteen would please him better, and he also asked that he be allowed at least eighteen instruments. What a change since then!

At the present time, however, the relation between the vocal and the instrumental parts has been changed. The orchestra in a modern oratorio now numbers about one-fifth as large as the choir. This is due to the fact that the orchestra today is treated independently of the chorus, as in an orchestra in an opera. In the days of Händel and Bach the orchestra was used as a background to fill in and supply volume for the production, thereby adding to the sonority of the tonal mass.

Sometimes very stirring effects are produced by dividing a large choir into two choirs, or, as it is commonly called, a double choir of four parts each. One of the most beautiful usages of such a choir is to produce the antiphonal effect, that is, choir answering choir. Some passages in Bach's compositions, as in the Passion of St. Matthew, produce dramatic effects when one choir is used to interrogate and the other to answer.

We have now come to a discussion of the requisite elements of a good chorus. And these are much the same qualities that constitute excellence in an orchestra, with something added. A higher degree of harmonious tone and concerted action is expected from a chorus of singers. Those qualities which make for excellence in chorus production are quality of the tone produced, balance of the different parts, correct intonation, accuracy of attack, precision, unanimity, phrasing, shading, and enunciation. In a chorus the quality of the tone should always be rich and full, the body of the tone must be flexible, it must always be sweet and melodious no matter how loud nor what the size of the chorus. The voices should so blend that the tones are smooth and fluent, there must never be any harshness or hollowness of sound. The voices should never seem strained but should produce their tones without apparent effort. And since each singer of the chorus must strive for the harmonious effect of the entire chorus, every singer should efface self and aim by technically handling his voice to add to the potency of the production. And the volume of tone should be in proportion to the size of the chorus. This depends upon the quality of the voices coupled with the good singing on the part of those comprising the chorus.

The balance of the different parts is absolutely necessary to good choral work. It is the fundamental constitution of the choir, and deserves the greatest consideration of the choir leader. There should not be a preponderance of any one or two parts. The contralto parts, because they lie so easily within the range of the voices, produce a rich, charming color, while the parts of the soprano often tax the voices and cause a strained tone; such a contrast destroys balance. As a rule the tenor part is very weak, owing to the scarcity of good tenor voices, and such a weakness is of course to be deplored in any good chorus. Nor can the defect be mitigated by the preponderance of the soprano; the ideal mixed chorus is one in which soprano, contralto, tenor and bass are equally powerful. It is far better to hear a small, well balanced choir than a large one badly balanced.

By correct intonation is meant correct pitch. From what has been said about a singer being able to keep the correct pitch, one can see that there is no excuse for a chorus singing out of tune. No conductor of a chorus should allow his choristers to drop from the key and finish the composition a half tone lower than the tone they began on. This is a matter that should be impressed upon each individual singer's mind, for by concerted action and care on the part of the choral members the correct pitch can be maintained.

Attack is the manner of striking the note. There should be no wavering in the attack, no sliding up to the note, the singer should know just what pitch his voice is to reach, and he should attack the note firmly and surely, with masculine strength, and not timidly or uncertainly. This is one of the worst faults a singer can have and it produces a feeling of uneasiness on the part of the listener.

By precision we mean accuracy in attacking and ending a tone. The attack of every note and phrase should be so precise that the entire chorus sings as one voice, and all the voices should leave off singing at exactly the same moment. This can only be accomplished when every individual in the chorus obeys instruction and keeps his eye on the conductor, who is there for a purpose.

Unanimity is another word for concerted action. The success of the performance depends wholly on the united singing of all the performers. They must attack their notes at precisely the same time; when the contralto part takes up the melody all the contraltos should act as one; there should be no undue precipitation on the part of any one voice nor a lagging behind in another. This soon clouds the music, and no brilliant or striking passages are possible under such conditions, for the rhythm is destroyed. Unanimity can be obtained only by clear, intelligent instructions from the conductor and frequent painstaking rehearsals.

By phrasing is meant dividing the melody into connected groups of notes so that each group can be sung in a single breath. The places for taking the breath come at the end of each phrase. So the phrasing must be done with two things in mind, the divisions must be such that the pause will not spoil the sense of the text, and the breathing of the singer must be kept so well regulated as never to become unnatural. Correct phrasing is one of the greatest difficulties a singer has to cope with, and in a chorus it is planned and arranged by the conductor. Upon it depends much of the charm of the melody. It is fatal to the beauty of a passage if the breathing is not fitted to the text and to the melody; and if the singers take breath at any places regardless of correct phrasing the relationship between the text and the music is lost. Some passages are very difficult to phrase, and if the conductor finds it impossible to phrase a difficult strain he will sacrifice the literary meaning to preserve the melodious phrasing of the music.

The emotional effect of the music depends mostly upon the shading. The conductor must so drill his singers that their combined voices may shade from the loudest fortissimo to the daintiest aerial pianissimo and be able to produce also all the tone-colors between these extremes. By watching carefully all the crescendos and all the diminuendos the conductor produces those ravishing effects which cause our emotions to hasten or retard with the music. The human quality of all music lies in the color of the tones, in the artistic use of light and shade in expression.

Everybody knows how uninteresting a vocal selection becomes if the words cannot be understood, if the ear must strain to catch the sense of what is said. All the text of a chorus should be so clearly enunciated that the audience can follow it. The words are intended to be heard, and a listener has a right to expect to hear. Of course a large mixed chorus can hardly be expected to enunciate as clearly as a small one, and the nature of the music sometimes makes it difficult to give due prominence to the words. But in a hall whose acoustic properties are good, and with a well-balanced chorus of a size not too large to become unwieldy, a conductor should be able to handle his chorus so advantageously that not one of the essentials necessary to good choral music is offended.

In all large choral performances there is a lack of expression, whether in America, England or Germany. There is a monotony about the many oratorios, cantatas and big festival choruses that makes the listener wonder often why so much time, energy and intelligence, as is usually spent to produce these, cannot bring forth an interpretation of the Messiah or Bach's Passion Music which will warm the soul; instead of arousing the emotions and swaying the hearers these choral numbers often leave one dissatisfied, for instinctively one feels the lack of personal interpretation behind it. This depends upon the failure on the conductor's part to fire the imaginations of the choristers. Could he get each man and woman before him to live in the music they are singing, to study the words till their purport is so clear to them that the words, as they repeat them, give the impression of original expression, then indeed would choral music rise to the magnificence of which it is capable, and every listener would carry away with him from the concert room the impression of a personal pleasure. With a field so vast before them and such excellent music to choose from, chorus singing has yet an unfulfilled promise to realize.

SOLO SINGING.

Solo singing is perhaps the most difficult form of music to judge fairly, for often the personality of the singer prejudices the critic, but, as was said in the beginning of this chapter, a true critic who understands musical technics and expression can distinguish between good and bad singing. Because we listen perhaps oftener to the vocal solo than to chorus or orchestra we have a greater opportunity to judge of its excellence, and yet there is no form of music of which the public knows so little. There are well-established qualities of vocal technics which we know of, at least, and talk of glibly enough, but we seem not to use the knowledge, if knowledge it be, when judging the ability of a soloist. We are so interested in the man or woman who is singing, we are so overpowered by the big sonorous voice, or charmed by the sweet low tones, or thrilled by some brilliant execution, that we give our unstinted applause, and at once decide we have heard a finished singer. We like to be pleased, to have our emotions touched, we wonder at the marvelous muscular feats, or are won by the personal charm and grace of a singer, and all we may have known of correct vocal technique we have forgotten or purposely ignored for the time. We go to a concert or opera to see and hear the particular singer, not alone to hear his song, and we have, it is true, a right to expect a pleasing personality, but when criticizing a vocalist's ability we should at least attempt to judge calmly and dispassionately.

We are quite as liable to give like praise to the man who is full of passion, and who by his filling the atmosphere with temperament stirs up an audience and sends us away in tears without our knowing why; and to the woman who can ascend and descend scales with lightning rapidity, who can sing trills with accuracy, and who amazes and stupefies us by her mechanical powers. In so far as either of these methods of appealing to an audience moves us or pleases our individual taste we have the privilege, to be sure, of stating that we like it; but if audiences on the whole were no more discriminating, demanded no more, the standard of a vocalist would not be a high one. Fortunately, for the world, such audiences do not decide artistic worth.

That there must be a right way of singing we do not doubt, and we know that every year sees some advance toward a natural method of teaching of so natural a means of expression. Methods have varied with musical periods and with countries, although all critics have agreed upon the results which should be obtained.

The human voice is one of Nature's grandest gifts when properly used, and is superior to the best mechanical musical instruments, for it can strike the chords of the human heart with a directness and intensity unqualed by any other instrument. The experiments of organ-builders have been concerned in an effort to make its tones like those of the voice, and the highest praise given an instrument is to say it sings. But of those gifted with a voice only a few have received at the same time the art of singing, and the very best voice is useless if badly managed. Singing then, besides being a natural gift, presupposes methods, and it is well known that a good voice can be ruined by unnatural methods, such as have been followed in various schools in an attempt to produce brilliant results quickly. There is no easy or short road to any accomplishment that is worth while. If the public had a larger appreciation of the art of the vocalist, and a greater knowledge of the time and unending practice required and had intelligent understanding of all forms and phases of music, then the discouragements with which every artist meets because of lack of appreciation would be minimized, and his support would be more genuine, and the number of real vocal artists increased.

It is not our purpose to speak of the many schools of vocal instruction, but we are proud to say that here, in our own United States, we have earnest, enthusiastic teachers who have evolved natural methods of vocal training, and have forced recognition of the worth of their methods in other countries. It is only in the past year that an American born singer, whose entire musical education was received in her own country, was invited to sing in opera in Covent Garden. This is a recognition of which we have a right to be proud, and it points to greater accomplishments in this country, whose art as American art is still in its first stages of development.

The text of a song makes plain its emotional nature, and the music vitalizes it, while the singer infuses into it the power of his temperament.

The most potent song is one in which the music most exactly voices the emotional subject of the written poem, and it follows that the best singing is that which is devoted to the interpretation of this kind of a song. While we should agree upon the technical quality of a vocalist's performance, we will always hold our own opinion as to the correct interpretation.

At the outset then we want to know at what vocal teachers and schools are aiming that we may know what to expect of an artistically finished singer. Perhaps the first thing of importance is the tone production, which is in reality the foundation of all good singing as it is of oratory, and depends upon the management of the breath. We know from our own experience in speaking, that after a certain amount of cultivation in the matter of moderation in expenditure of breath such as most of us have accomplished, that when we allow no excitement or unnatural physical or mental state to rob us of our self-control that the muscles concerned in speech move in broad, loose vibrations, and produce our lowest and strongest tones of voice. With every higher tone the vocal ligaments stretch and the space between them is narrowed, making the air passage smaller. The singer learns to control that air passage and to produce tones of a like quality in different registers. We expect the singer to possess just such mastery over his vocal instrument as the violinist possesses over the mechanical difficulties of his violin. Theorists differ in their opinions as to the number of registers in human voices, but it will answer our purpose here to speak only of upper or lower registers which we all recognize, and the equalizing of which is the first requirement of the singer. Some voices are so poorly equalized that as they pass from lower to upper they sound like two different voices, whereas one of the first requirements of a good singer is that there shall be no noticeable change of quality between the two.

With the proper management of breath comes the clear, pure and free tone. All the breath should seem to be turned into tone, and the tone should never sound as though there were a physical effort to produce it. It must seem to come easily and naturally, and not make us aware in any way of the mechanism necessary to give quality and force to a note. A good singer will, as we have said, change imperceptibly from one register to another in order to vary the force of a tone, or can keep the same register and increase or diminish its force. Without increasing the volume of sound the artist will intensify the different gradations of force introducing the softest effects to great advantage, even in a large theatre or hall. If he has his voice under perfect control he can even by the use of very little voice intensify the very softest tone and make it heard nearly as far as a loud one. If a poorly trained singer ventures on a soft effect he often fails to make his tones heard, and in trying to swell out a note the result is usually throaty and often ends in a shouting or shrieking sound, lacking, of course, all purity and freedom which are so essential to good singing. He has failed in the matter of breath control and the vocal muscles are being strained in an effort to produce a louder sound. The audience should seldom be aware of the fact that a singer is inhaling, as he should be able to take a full breath easily, quickly and firmly.

Another element of good singing which depends upon the control of breath is that of phrasing or dividing a melody into connected groups of notes, each of which groups is so written as to be easily phrased by the voice, and it requires skill on the part of the singer to so divide the melody as to preserve both literary and musical sense. The breathing must adapt itself to the melody and the musical ideas never be interrupted by the singer inhaling breath, for then the thought becomes quite as unintelligible as it does in speech when the relationship of words is not observed by the proper modulation of voice. The vocalist here shows his knowledge of musical design or form and frequently must make amends for the composer's seeming lack of attention to the necessity of proper intervals between phrases in order that the song may be delivered in an intelligent manner. This is but one of the many proofs that a good singer knows more than just how to sing; he understands the principles of composition as well as those of vocal expression.

There is no reason why an audience should not demand clear enunciation on the part of the solo singer, although no one will deny it is sometimes a difficult task for the singer to so articulate each vowel, and especially the consonants, that a theatre, church or hall full of people can hear all the words perfectly. However, it can be done as is proven by some of our greatest artists who at the same time preserve all the artistic musical beauty of the song. Such vocalists are able to produce a good tone on any of the vowel sounds at any musical pitch within the compass of their voices.

There are lesser musicians who sacrifice clearness of sound to smoothness of vocalization, but this is if anything even worse than a failure to clearly enunciate. The two qualities can be harmonized and one made to enhance the other. In getting away from some of the old artificial methods of singing this difficulty is being overcome to a large extent, and as the manner of using the vocal organs in speech and in song nears a natural and hence more perfect method we will oftener be able to understand the words of a song and at the same time feel we are losing nothing of its worth as a musical composition.

All that has been said of the method of attack, that is, the way in which a tone is begun, in instrumental music applies also to vocal. A perfectly clear, positive tone is obtained by uttering it at the exact moment that the breath is emitted, and it is such a tone that expands and fills the largest auditorium. Frequently we hear what we call a breathy tone, the result of a poor attack quite as are some of the harsh and unpleasantly sudden tones which come like an explosion when the enunciation of the word is begun a second or a fraction of a second before the breath leaves the throat, and so prevents purity of tone. Upon this proper beginning and the right closing of a tone depends the smoothness of a song.

Each tone should be held until the very second that the next one is begun, and there must not be a sliding of one tone into the other. That method is frequently used and often with good effect, but in most pure melodic themes as of operatic airs or of songs the legato method of holding one until the next is struck is considered better, and we all know how monotonous the sliding, carried-over tone becomes and how often it is employed by amateurs who have not the control of the vocal cords and of breath necessary to the holding together of tones in the correct way.

While the artist may be a born artist, and the vocal artists it is true are usually naturally gifted with beautiful voices, yet it is intelligent work which gives them perfect command of the technics of singing, only the fundamental ones of which we have spoken. It is perfect mastery of the natural voice added to emotional force and understanding of all artistic principles that makes artistic singers such a powerful influence not only in the narrower circle of musicians but in the land or lands where their songs are heard.

THE PRACTICAL VALUE OF MUSIC.

Does it pay?

In spite of scoffers, a perfectly sane, relevant question. Does it pay for the father of a family of boys and girls to spend his money for their musical education? Does it pay the city to spend its dollars for instruction in singing in our public schools? Does it pay a country to support public concert halls, to supply bands for its parks? Does it pay a government to provide regimental bands for its armies? Does it pay the nations of the world to encourage, in every possible way, the promotion of this art?

If the answer to each question cannot be given, and with good proof in the affirmative, then it is time we ceased to give talent, time and money to the support of the musical education of our children, and of men and women of our country. We Americans are practical people and look for a dollar and a few cents in value returned for every dollar expended. We were long concerned, and necessarily so, with the material growth of our country, but in a remarkably short time evolved a system of public education such as is known in no other land, and today American art is finding a place slowly but surely among the artistic creations of older countries. We have profited, by the experiments of other lands, in manners and methods of creating among the people a desire for the highest and best expressions of the human mind and heart, and have endeavored to solve difficulties peculiar to our own needs.

We are unafraid to ask the question, does it pay, even at the risk of possible ridicule, for we have a right to know, and feel we can now answer our own question. Yes, it pays;

decidedly and emphatically yes; all the wealth of the individual and of the government will be returned if it is properly used for the promulgation of so elevating, expressive and universal an art as music. It was Herbert Spencer who said during a visit to the United States, "If along with your material progress there went equal progress of a higher kind there would remain nothing to be desired." The progress of a higher kind is well on its way and it no longer depends upon the enthusiasm and earnestness of a small circle of artists and a few philanthropists, as communities of people have awakened to other needs than those supplied by food and clothing and shelter, and other luxuries than those which contribute to physical comfort. Our cities and states are devoting a share of their funds to supply the demands of those who realize the need, and to create in others a longing for the best that life has to offer us.

As a nation we are concerned in making this a great nation, financially, politically, physically, intellectually and spiritually. And here as perhaps in no other country all depends upon the development of the individual. Our business then is to make our homes, our schools and colleges, our churches, our public entertainments, all our institutions such as will help to develop the individual and make him a good citizen.

Man is a social animal, he cannot hope to develop without help from his fellow men, and his right relations with them prove his right to citizenship. What other art is so available and attractive to all men as that of music? No one will deny its great socializing power; it gives such excellent opportunity for co-operation that at once it presents itself as a social as well as an æsthetic influence. If then it unites people, brings them into closer sympathy, surely it pays—pays all a country expends by answering one of its greatest needs. But perhaps it is the commercially practical man who asks the question, does music as a profession pay? We can refer him to figures, for figures sometimes go far to convince when theories prove nothing to the man used to visible proof.

In the United States alone we have over 68,000 men and women engaged in teaching music. A precarious living perhaps for some, but that is true of any profession. Over 75,000 of our countrymen are engaged in the manufacture, sale and tuning of musical instruments. In Paris the Grand Opera pays about $500,000 yearly to some 700 singers, players and others needed to produce the opera. In London alone there are 4,000 men and women earning a livelihood as music teachers, and 11,000 in all Great Britain. These figures to be sure prove nothing of the real worth of music but they do show there is a commercial value which is an element that should have its proper consideration. Germany supports more than 10,000 military musicians. As they are all able-bodied men whose services as soldiers would be of value the German government evidently places a high estimate upon the value of good music in military organizations. Every regiment of troops in our own country has its band, and the bugle and fife and drum corps play an important part in our military drills.

To realize the worth of a thing it is well to try to imagine what the world would be without it. Think of the theatre if music were taken from it, of the church without the powerful influence of music, of the school minus that unifying element, of an army depending upon the voice only for signals and for inspiration, of all public gatherings barred of song and orchestra, of smaller social groups, of children's games and plays, without the rhythm and time of song or instrument. Can you imagine such a dreadful state of affairs, and can you imagine the stage of culture we would be in? A savage state surely, without the refining, unifying influence of this great art.

There is scarcely a public or private institution where the services of one or of many musicians are not required. It has its commercial value. It is not a mere plaything for entertaining the populace. The field for the musician is a large one and it behooves us as a country to give every opportunity for musical education to our people as have other countries. We need thousands of musicians and will need thousands more as all people are made to realize the power for good music can be in a great nation such as this.

It is the practical man who is going to solve many of the problems which have seemed to belong to the theoretical educator and to the artist. It is the practical mind of our land which is not afraid to view art with a commercial eye. If it pays to fill our homes, our schools and cities with good music, then we must find a way to supply the demand for performers. Not every member of an orchestra or a band or chorus can be a real musician, one with a deep understanding of the meaning of art nor with a large appreciation of all that is best even in his own art. We may strive toward such an ideal condition by helping to educate our people in so well balanced a way that they will have a greater knowledge of and appreciation for the best things the world offers. We can widen their understanding of all life and help them to see the oneness of all life and all expressions of life.

But we have the present conditions to meet, and the man of everyday common sense realizes the conditions quite as well as the dreamer, but unlike the dreamer he takes the material he finds and uses it to best advantage. There is a great cry from professional people of our country that they are underpaid, and we all know this is true, but again we must consider whether or not the people who are paying for their services are awake to the benefits received. If not, then they must be awakened and we must have some sort of proof ready for them. Here in our own country there have been men who have given their talent and time in showing the public what good music means to them, in hopes of creating an appreciation not only of the work of composer but of performer. When alive to the worth of a thing, as a people, Americans are ready to pay for it, and the day will come when the professional man will not have to have other moneyed interests in order to provide decently for himself and family. In proportion to his worth to a community a man should be paid.

Where then are we to begin this process of creating a desire and understanding of artistic production, and when and how? Everywhere possible, now, and the how each community must decide in part for itself.

If we consider the child as the hope of our nation then the home is the first medium through which we can work. The family is the smallest social unit, and upon it rests the success of all our larger institutions, and its influence for good or bad is greater than we can measure. It is then in the home that the seeds of culture should be sown, and it is so easy to inculcate a love for music and good music in the family circle. Shall the son or daughter be made to practise for many hours, and money expended upon their lessons and upon an instrument, is a question for parents to consider well. When talent is lacking surely the child might better give his time to good, healthy play and spare his family and his neighbors the necessity of listening willingly or unwillingly for hours of each day to five-finger exercises and later to waltzes and marches drummed out to his one, two, three and one, two, three, four. Such compulsory practise means suffering for both child and adult. When Rubinstein said that America was afflicted with "piano disease" he was not far from right, for piano lessons have universally been given to our children regardless of their natural ability or lack of it.

We have endeavored throughout this work to impress upon the reader the fact that it is not absolutely necessary to become even an amateur performer in order to appreciate good music. We do learn, it is true, by doing, and we do not wish to deprecate musical instruction in the home. Let it, however, be of a sane, rational nature. The child is more of a poet than the adult and the simple songs and lullabys sung to him in a simple, clear way awaken in his little heart a feeling of closer kinship between him and the singer, who is usually the mother. Music is a part of the human soul, and even the very small infant responds to the rhythm and tune of the lullaby. It is a language he vaguely understands before the spoken word has any meaning for him, and for this reason it is a language he should become familiar with while in the cradle, and then there should be no break in the development of his natural desire for it as there so often is. The infant is quieted by the mother's song, and then when he has outgrown his babyhood he is plunged at once into a language so foreign to him, and perhaps until he enters school music has no further place in his little life. This should not be so, for it is during the first few years that it is comparatively easy to awaken and direct the right desires in a child, and by giving him simple, but beautifully simple, and pure music in childish songs, rhythms, and dances, you are helping him to know and appreciate the good in all forms of life.

We do not discourage technical instruction for children, though for the very young child it is deadening. He sings for the joy of it, largely a physical joy, but he is a little physical being with spirit and mind only just awakening. Let him feel the rhythm, the swing and melody of the song, let him hear much good music before any attempt is made to teach him anything of the material part of the art. That has its place in his education, for a really great appreciation of any art one must know something of how it is made, of the elements which enter into it and of the design or working plan of the creator.

Today good music well performed is not barred from homes where there is no musician. The demand for the great masterpieces and the lack of talent to play them has brought about our truly wonderful mechanical music. The pianola first came to us as a means of amusement but now in its perfect form is a means also of education. Because you cannot sing and cannot play it by no means follows you are not musical. There may be within the home those whose love and appreciation of music is deeper and truer than that of many a performer, but often there is no opportunity for them to develop the appreciation. The value of a pianola in such a home cannot be estimated. Machine-made music is ten, yes, a hundred per cent, better than that often performed in homes even of wealth and culture. Why then should artists scoff at the inventions which carry to thousands and millions of peoples the means of knowing the musical creations of the greatest composers interpreted by the greatest performers?

It caters it is true to the taste of him who prefers the popular songs and two-steps, but it also produces the finest music which can be performed upon the piano. And furthermore, even the two-steps are well played, which cannot always be said when played by the boy or girl who can read a little music, can manipulate the piano keys, and trusts to ear for the rest.

There are few people who have not at least voice enough to sing reasonably well in a glee or some form of chorus and the time or money spent in learning to do so correctly is not great, while that of learning to play an instrument involves months of wearisome scale playing. If it is known that a child cannot excel as a performer why should so much time be taken from other studies and hundreds of dollars spent in order to gain a knowledge of and love for the art of music? Half the time and but a small amount of money will give the boy or girl the ability to read vocally at sight and will teach him or her how to listen to music so that not only senses may be gratified but minds kept alive to the technical beauty of what they hear.

It is true of course that home influence and school instruction of all kinds are going towards the making of the man, but these should bring their pleasures with them, only let them be such pleasures as will elevate and create a desire for something higher. Music has its place in the home just as a means of entertainment. No matter how boisterous the song and its accompaniment or how loud the chorus there is an insensibly refining, wholesome influence in the gathering together for one purpose, in the lending of voice and instrumental skill for the mere sensuous enjoyment by the children of one home or of several homes. It is a form of entertainment that attracts, and then, with a wiser head to guide them, music in the home will rise to a higher plane, and the finer sensibilities of the child will be touched; and if there is any real talent or true appreciation they will begin to show themselves. It is a means of enjoyment all can enter into whether old or young, and if pursued in the right way there is nothing that will bind so closely a little group of people as music. Again and again we repeat that it is so universal a language, it appeals to all, it should be a part of the nature of every man, and hence its unifying power. Does music in the home pay? Does it pay to know that you are making it possible for your child or children to know and appreciate all that is true and good and beautiful, does it pay to help him or them to think thoughts that the greatest minds have thought and have expressed in beautiful melodies? Does it pay to start him right in the world, to bring him into close sympathy not only with his own little home world but through so universal an art, with the great wide world and all its people? By opening his mind to the wonders of all creation, whether God's or man's, you are but giving him what is his by right. The best is none too good for any home, and the ideal home is the one where only the best in the way of art is brought to the child. If we all followed William Morris' rule for furnishing our homes there would soon rise a demand for only the best life can give, that is, if we discarded all that is either not useful or beautiful. His rule would apply equally well to all less tangible things than furniture and pictures and rugs. If all in the way of literature and conversation that is not elevating and pure, if all in the way of music that does not, however simply, express some beautiful or at least some true emotion, or display some artistic technical worth, were barred from the home the child would always demand the best. If he is fed upon wholesome food he will have no taste for that which does not nourish.

Educators have long realized the necessity to life's satisfaction of the constant presence of beauty in nature and art, but until the people could be made in some degree to realize this necessity it was difficult to make the study of art forms a part of the public school curriculum. Today, however, there is scarcely a public school, however small the town which supports it, but that includes in its course of instruction some music and drawing. Music has of course always been present wherever a few people gathered together, and schools have always realized its unifying power, and songs have always been sung by teacher and pupils. Other lands long ago were alive to the influence of music and supported by public funds singing societies where the best instruction was given the people entirely free. That instruction was often faulty, time has proven, but nevertheless it was by such effort and through such experiments that we have evolved systems of class instruction. Every city of any size now employs special instructors. The training of children's voices and the teaching of technics of music is no longer left to a teacher without musical knowledge and perhaps entirely lacking in appreciation. We still have with us those who object to the introduction of the study and practise of art in our schools on the ground that it does not carry with it the particular kind of education which the public demands for its children, the kind which shall be of service in the struggle for existence which follows their school life. They do ask, however, that our schools prepare the child for the life of a citizen and seem to forget that anything which helps to make man feel his oneness with all mankind is the very thing that should be a part of all education. It is true they have some ground for their argument. Art may be only a means of luxury and self-indulgence and then surely is an anti-social agent, it has acted as an overstimulant for the emotional nature of some men and in that way has weakened instead of strengthened the will power.

But these objections are overcome in the public instruction, for music has its proper place in the outline of studies; it must occupy no more than it legitimately should; it must be wisely directed and must correlate with all the other branches of instruction. It is not to make musicians of our boys and girls that the city expends its funds for music instruction, for pianos, and for the thousands of copies of song-books; it is not to make orchestral players or oratorio singers that the school orchestra and the school chorus are given time and attention. It is here as in the home a powerful agency in helping the youth of our land to understand what right living is; it is not to prepare them to make a living but to prepare and help them to live.

Institutions of higher learning were somewhat slow to admit the practical study of music, but today our leading colleges include it with studies of the sciences, language and literature.

History to the child or youth means just so many facts of greater or less interest according to his own inclinations, but to the maturer student it is a picture of life. The history of an art for this reason is seldom included among the studies of the child, but colleges have always included it, and now that they also offer a practical musical education, the study of history of music is a means to greater appreciation. Its value lies in its ability to establish a close relation between the student and art work. He is through sympathetic power able to enter into the life of the artists and to feel that after all he is not so far removed from them, for he finds he and they have interests in common. The purpose of the study of art history then is to enrich the inner life of the student by making it receptive to all the influence which music in its development through the ages has gained the power to exert.

Musical theory has also long been accepted in school courses as it treats of music from a scientific standpoint, and so is in a way related to other sciences and has a value as a mental discipline not unlike mathematics. The training of singers and players, however, was not considered a proper part of college courses, but with a fuller realization of the part music is to play in the development of our country came added courses, including performance. Historic and theoretical studies are necessary, but the real critic must know how to listen to music, and nothing will give this ability so surely and correctly as a knowledge of the technics of music gained by such training as is given in instrumental or vocal instruction. Then, too, the standard of music as a business is raised by the consideration university and college authorities are giving it. It means that in time we will expect a musician to be a well educated and a well balanced man whose specialty is that of musical critic, composer or performer. It is making a practical thing of music that is going to raise the type of musicians and of music, that is going to free the people from the idea that musicians are a sort of unbalanced class of people and that music as a study weakens the mentality and will power of the student.

The mind grows by what it is fed upon, and the habitual hearing of good music will go a long ways toward appreciation, although an intellectual understanding is absolutely necessary to any great appreciation. However, we must consider the great mass of people in our system of education. We cannot reach them all through our public schools, through our churches, colleges, nor even through the concert hall and theatre. We cannot interest them in the technics of an art, but we can bring good music to them easier than any of the other arts, and it is possible to appeal to all people through music without resorting to the coarse and gross.

It would be madness to expect to reach a park audience in some of the slum districts of our big cities by offering them one of Bach's fugues, or Beethoven's symphonies, when all they have had up to that time were grind-organs and voice performances of the coarsest popular songs. But there are simple and beautiful compositions that speak to the hearts of all humans, and some sociological scholars tell us that only art which reaches the masses is art worth while. However true or false that may be, we do make an effort to find such art when we are to deal with a people whose finer instincts have been crushed by the life about them.

No one can estimate the influence for good derived from our public, open-air band concerts. If they did nothing more than to bring together a great cosmopolitan audience and make its men, women and children forget for but one-half hour the cares and struggles and strife in their lives and the lives about them and so afford rest and recreation for mind and body, they would be worth while. But their influence is greater, and the greatest and most successful settlement workers everywhere make use of music in their efforts of refining, of subordinating the lower to the higher self, of bringing about a feeling of responsibility and closer relationship of the peoples with whom they deal.

There is no greater proof of the universal power and language of music than that presented by an audience at a free concert. There gathered together for the purpose of enjoying a common pleasure we find all classes and all ages of people. And the music seems to appeal to each and every one with equal charm. They listen differently it is true, some sway their bodies to the rhythm, others attempt to subdue a desire to hum along; but those who have their emotions under best control listen intently and quietly, seeming to drink in the charm, and, allowing their whole beings to be overrun by the inspiring strains. But a glance at such an audience, especially if it is made up of the working people, must impress the observant man with the ennobling effect of this universally beloved art. Many a working man is attracted to the wholesome atmosphere of a park by the band music. Many a laborer takes his wife and children along in the evening to one of the neighboring parks, and thus the wife who has been toiling in close rooms all day, and the children who have been playing on dustry streets, get out into the open air where the sky forms a big, wide canopy, and the grass a soft carpet for the little ones' tired bodies. And the husband, removed from the degrading influence of his usual evening companionship, finds himself lifted to something better within him, feels in his joy in the music and the beauties of nature around him a realization of his appreciation for what is better in life, and unconsciously he longs to do better. And having enjoyed these pleasures together, having been stirred at the same time and by the same cause to a craving for the better side of life, husband and wife leave the park with happier hearts and nobler ideals and their little family is better for it. And if these visits to the parks can be made so attractive that they will call many people together, and call them together often, the amount of money expended by the city authorities for such music and for beautifying the city parks can never be too large for such purposes; the city gains in refinement, the people are happier, there is less vice, and the community becomes a stronger social unit.

How quickly and easily a populace can be educated to an appreciation for good music is evinced by the class of music which makes up a popular program and the large number of the audience. Not long ago one of the popular concerts in a park of a large city was advertised to consist of two parts: the first various selections and the second part to be the Stabat Mater. Long before the concert began all the seats in the hall were filled, there being standing room only. It was argued, however, by some that the audience would thin out at the end of the first half; but this was not true, not only did the audience show no desire of foregoing the pleasure of listening to the Stabat Mater, but fearing to lose their seats the entire audience remained seated and waited patiently through the accustomed intermission of one hour. Add to this the fact that the park is down near the crowded working district, that the audience consisted for the greater part of a very varied assembly of working people of all nationalities, and that an admission fee of ten cents was required to get into the concert hall, and no thinking man can say that music does not hold a high place in the hearts of the people. These band concerts in parks are not only affording the people happy hours of recreation but they are educating the people to a love for good music, and are therefore one of the strongest influences for the social betterment of mankind.

Colleges have realized the socializing effect of music on the student body. And for this reason college glee clubs receive the hearty co-operation of the faculty. These college songs cement the students together; they bind not only the members of each class but they form a connecting link between each of the classes and join the generations of the present with the generations of the past. The college songs like the folk-songs of a nation voice the traditions of the university and form a strong factor in the fraternal life of a college. At a student meeting on the campus the college songs often give the members of the faculty a chance to be boys again, and as they join the fellows in their songs they establish a better feeling of good fellowship between pupil and instructor. There are a great many things that a college professor dare not do with the students, for it would lower the dignity of his position, but a real live professor can sing in the mass meetings, and he and his students will be all the better for it. And at the alumni banquet, when gray-haired old boys meet with the graduates who have just received their degrees things may run a bit stiffly at first, but let some one start the songs of their Alma Mater, and the ice is broken, strains flow from the lips as easily as the wine from the goblets, and a healthy, joyous, free and easy spirit joins the present with the past as young and old get acquainted.

No form of music has had a greater effect in unifying the people of the past than have the folk-songs, or ballads, as they are called in England. The word ballad originally derived its name from the old French word "baller," to dance, and it meant a song sung to the rhythmic movement of a dancing chorus. These ballads or folk-songs are songs composed for the people, by the people themselves, and were handed down by oral tradition from one generation to another, retaining their original style, sentiment and incidents, and sung with the same relish by all the common people. Because of their simple beauty, the directness of their melody and text, they have lived through centuries while the more artificial music of the nobility has been lost and forgotten.

Ballads sprang from the heart and lips of the people, and flitted from age to age among the shepherds, the peasants and the more simple classes of mankind. They made music to the splash of the fisherman's oar, they supplied a melody to the whir of the spinning wheel, and they lightened the labor of the plowman in the field, and nature seemed to aid these simple singers in their song, for the folk-song imitates the song of the bird, the whisper of the trees, the roar of the storm, and the murmurs of the stream. The soul of the peasant breathed through these simple songs and afforded him the same pleasure that the bird seems to find in his musical lilt. From the similarity in the ballads of England, Greece, and France, we know how close to the hearts of these people their songs lay and what a comfort and a solace they must have been to the lonely worker or solitary wanderer, and what an unifying power they were in the home, the village games, and at festivals and public gatherings.

Every one knows how singing lightens labor; the work of the hands or the feet becomes half play where the lips sing to the motions of the body. And a trip through savage countries at the present time, where man is still in the primitive stages of civilization, reveals to us by many signs that the savage not only knows the utility of music in daily life but that he employs music as a useful art more than as an æsthetic one.

The negro boatmen sing a song as they ply their paddles, keeping time with the strokes. One or more of the rowers begin the song, and then all join in the chorus. The music stimulates their sluggish natures and helps them to overcome their inborn laziness. In this way a long distance up a rapid stream is easily and quickly covered, the strokes fall with regular accents, and the strength behind each stroke is increased under the stimulating effect of the melody. In a cheerful frame of mind, unconscious of their labor, these negro boatmen finally arrive at their destination only half as tired as they would have been had they covered the same distance in silence, mindful of every effort they had put forth all the way along to propel their craft.

The negroes on our southern plantations before the war used different songs to accompany their work in the fields. Much is said and sung about the picturesqueness of a plantation scene. The vibrating melodious notes of the darkies among the cotton stirred the emotions of the hearer, but not every listener guessed what the song meant to the workers. Everybody knows how easy it is to be carried along by a rhythmic melody, your hands, feet and head involuntarily keep time to the music. Without any effort on your part the body becomes active and it will keep up this activity as long as the music lasts.

Just what the origin of the southern darkies' song is, is unknown, but many of them bear close resemblance to those of some of the African tribes. Without a doubt singing accompanied the slaves' work, and the song whose words probably described the actions, and whose rhythm marked the actions, came to be a symbolic song, and at each particular harvesting it was repeated and so handed down from one generation to the other. The text occupied the singer's mind, somewhat idly no doubt because it was so well known, while the rhythmic swing of the music stimulated his sluggish limbs to activity and kept them going much more easily than they would have moved had they depended for their generative power upon the will of their owner. Nor was it necessary to the successful results of these songs that every worker sing. Just so enough melody was being created to be heard by all the effect was there, and so when some of the singers tired, others who had been silent took up the song, and by the freshness of their voices infused new vigor into the tiring limbs. Sometimes singers were hired by plantation owners to sing or furnish instrumental music at a harvesting time. The negroes are even now noted for the rhythm of their music; they have a perfect ear for accent, and all their melodies are clearly marked by a well defined rhythm. And this characteristic so essential to good music condones for many of the shortcomings which their melodies may display.

Among the tribes of Africa the drum plays a very important part; drums are used to call the men to arms, to a dance, or to sound an alarm, and every negro is so well trained to know these sounds that he makes no mistake in distinguishing them. Not only do the savage tribes use the drum as a signal, but they believe its din terrorizes the enemy, and so we find that when they march to battle the drummers beat with all their might and 'tis a case of seeing which side can make the biggest noise. It is a well-known fact in military circles of even the present day that the drum-beats of a marching army not only stimulate the body to activity and help overcome fatigue but that they infuse courage into the hearts of the soldiers, and so, armed with courage and self-reliance, they approach the enemy and the battle is already half won. Small wonder then that the savage army which made the bigger noise often succeeded in "frightening" his foe to flight. For the warriors who had been following the noisier drum-beats at their head naturally advanced under the greater stimulus, and with this powerful impetus thus gained by artificial courage, the best inspired soldiers proved to be the fiercest fighters, and by the fierceness of their onslaught drove their enemy to flight. The usefulness of musical instruments among savages as signals in battle has always been recognized. By the use of certain signals the army is told the position of their chief during a battle, or whether to scatter and shoot from ambuscade, or to advance in a body upon the enemy.

The Swiss herdsman uses his Alpine horn as much for signaling as he does for pleasure, and we are told that herdsmen play upon pipes to call the cattle home. 'Tis a well-known fact that animals readily obey signals of music. Circus men claim that the music forms a very great factor in the training of their animals. The animals learn to perform to certain tunes and learn easily, but they depend wholly upon the tune as a guide and a stimulus. This is shown by the fact that without the music the animals either refuse to perform at all or else do it very poorly, losing the rhythm of the movement and seeming spiritless.

The practical value of music in the army cannot be overestimated. So important a part does music play in drilling, in camps and in cheering the soldiers on the line of march, that one may almost say the destiny of the army lies in the hands of the bugle, the fife and the drum-players.

One of the first things the young recruit has to learn is the meaning of the various bugle calls. The calls are the a b c of army discipline and the number of signals is more than twice the number of the alphabet. The bugle sounds drill, guard-mount, inspection, attack, advance, retreat, fatigue, and its language is as intelligible as the spoken word of the captain, and even more incisive.

On the line of march the fife and drum and any other musical instrument which may be the custom of the country to use are depended upon to furnish the inspiration so necessary to the tired soldier. Under the stimulating effect of a lively rhythmic march or a familiar song the soldier marches on unmindful of his aching limbs, his hunger and thirst, of heat, or cold, and when he does arrive at the new camp, or comes face to face with the enemy, he is not as conscious of the physical and mental strain as he would have been had the march been made without music. And a good drum and fife corps will go far towards strengthening the effectiveness of a company. The soldiers who are marching to music, played with animation in perfect time and tune, march with a sprightlier step, keep in line better, are in a more cheerful frame of mind, and make better fighters than those who are marching to poorly played music. Take away your music and it is safe to say the army would go to pieces. Every soldier can recall some critical time when the day was saved by the fife and drum. A company of Scottish Highlanders had been forced to fight without the usual accompaniment of their native music. In a battle, when everything seemed to be going over to the enemy because the Scotch auxiliaries seemed dispirited and ineffective, their chieftain appealed to the commander to have the pipers play. And the effect was like magic, for as soon as the familiar strains of the bagpipes struck the ears of the fighters their strength came back to them, and, cheering with vim, they fought a gallant fight and saved the day.

Nor can we give too much credit to the songs composed during war time to cheer the soldiers on. No one can hear the strain of "Marching Through Georgia" without catching the inspiration of its rhythm. Not only its tune but its words cheered the soldiers and enlivened the camp.

The songs which the Civil War called forth were of inestimable value during those hard years of struggle and suffering. Whether on the line of march or in camp, the songs the soldiers sang became a safety-valve for pent-up emotions. For in them they found expression for their longings for home, their hope for success in battle, and from them they gathered cheer to carry them on to deeds of heroism. The solace which these songs furnished the heart-sick soldiers at night was just as valuable to military discipline and bravery by the comfort and the sympathy their words conveyed, and was just as necessary to the success of the army as were the drum corps or the buglers. They brought the hearts of the soldiers closer together and turned their sometimes violent passions to thoughts of home and of country and the real cause for which they were fighting.

Music was undoubtedly early employed in aiding worshipers to approach their deity or deities. Before man had any definite religion he lifted up mind and voice in adoration of the powers above him. Ever since the earliest times man has either invoked the aid of his god or has aimed to counteract evil potency by means of music. The history of sacred songs and of instrumental music, no matter how crude, shows plainly the spiritual influence of music. The ancient Hebrews knew well the power of music, and the Bible alludes to their songs of praise, or triumph, or of sorrow. Music lends itself so elastically to emotional expression that it has always been an important factor in religious services.

We need but to point to the church services of all denominations at the present day to be brought face to face with the importance of music in religious worship. Strip the Catholic Church service of the music of the mass or do away with the church choir in a Protestant church, or deny the congregation the joy of singing their well-known hymns and the Sunday service would lose much of its spirituality. There is a mystery, a charm, a certain indefiniteness about the language of music which the spoken word lacks wholly.

Music touches us largely through our emotions, and allows each one of us to put our own interpretation into the melody, and therefore music is more individual; it speaks to each listener in a language he can feel, though he may not be able to express his feelings in words. In this respect music is analogous to religion. Some of the most keenly sensitive religious natures are those which have no well-defined ideas or schisms concerning God and his love for man; yet these same natures are in perfect harmony with the Infinite, they feel the divinity of a higher power in all they see and hear in nature yet they cannot express their feelings nor do they try to. Their emotions are so real, so deep, so truly a divination of the real truth in life that they accept their feelings for an idea and never try to analyze them. A picture or a sculptured marble must represent a definite idea, not so with music. It may stand for a definite idea with the composer, but it usually expresses only a mood. A few minor chords may suggest sadness, melancholy, darkness, tenderness, a simple confiding faith, daintiness, humility and supplication; but when major chords are sounded the ear quickly catches tones that express strength, fearlessness, joyousness, vivacity, brilliancy. The major tones may express a prayer, but it will be a prayer of hope, of courage, not the prayer of a crushed, wailing spirit.

Although the music of the church in early times was very simple, yet Gregory the Great knew its value in the church service and diligently collected and elaborated the music then extant and gave to the Catholic Church the music which it has used for centuries. We know that in the Sixteenth Century the oratorio was the outcome of the combination of music and the spoken text. And Martin Luther, the great reformer, so realized the value of music in religious services that he gave the people hymns with the words in their own language. Up to this time all the texts for hymns had been in Latin, and if we needed proof of the power of music we have it right there, for the people had been stirred, spiritualized and satisfied with hymns and church song services whose text was unintelligible to them. By means of his hymns Luther gained for his religious precepts a remarkably effective agent, for by choosing a text to suit his melody or by composing a melody to conform with his text he touched the hearts of his hearers more readily and more convincingly than if he had had to rely upon the spoken word, or had used the old hymns with Latin texts. 'Tis said that the infidels have no music; this statement, if true, proves not only the meagerness of their hope and a seeming joylessness in living, but also goes to prove that music is the language of religion.

Music reaches the masses more quickly than does the spoken word. An audience will listen to a Fourth of July oration and applaud appreciatively, but let the band strike up "My Country 'tis of Thee," and the whole audience longs to join in, and is more than ready to take up the melody as soon as the band has finished the introduction. And they'll sing with all their might even though they may not know all the words ('tis a disgrace to the Americans that this is often true, but it is a fact) and though they may be compelled to hum along or repeat stanzas. It is the strains of the wedding march much more than the significant words of the minister that makes the wedding service so impressive. Everybody knows how sad, mournful music can move a whole multitude to tears, or how the measures of a tuneful Sousa march can start all the whistlers a-whistling, and there are people who argue that music is impractical, useless, and a waste of time. These same people are the ones who believe that all games and recreations are impractical, for they take a busy man's time and bring him in no visible gain in dollars and cents. Such men never go to a ball game; they can't spare the time, or else think it is foolish. They don't know what it feels like to shut up their desk at 2:30 and go over to the ball park and be boys again. To shout, to rise to their feet with the onlookers to get a good view of a difficult play, to so forget themselves and their business that the world looks like play again. The joyousness of a good ball game is stimulating and healthy, but it must not be carried to excess. A man can't neglect his business for a game, but he ought to manage his business so that he can find time for an occasional game and rejuvenate himself. For joy and good cheer and a freedom from care are conducive to good health and longevity.

Now emotional music is just as effective in its way as a good game; it arouses your pleasurable emotions. And so our recreations, whether they take the form of music, games, walks, make far better men and women whenever they arouse in them a healthy, wholesome joy in life. Some men actually cannot get away from business long enough to indulge in any form of recreation, and for such men it is very fortunate if they have within them the power of appreciating good music. They can then enjoy park concerts, the concert in the theatre or concert hall, the pianola or any other instrument they have in their own homes. Many a man who comes home from his office finds great pleasure and rest in a half-hour's playing, and his mind and body are both soothed by the music. Perhaps while playing, or listening to some member of his family playing, he too has forgotten his business, he too has been a boy again, or has caught again the inspiration of happy memories.

The beneficial effect of music upon the sick, the vicious and the insane cannot be denied, and its practical value in therapeutics is acknowledged by physicians, heads of institutions for incorrigibles and criminals and by physicians in charge of asylums for the insane. Many experiments have been tried in this field, and their results have been watched with interest and recorded; but music as a healing power has as yet produced so little data that it cannot be regarded as a science, though it is believed by well-known doctors that its use in treating diseases warrants systematic study.

Just how music works upon the disorders of the mind or the body is not known; perhaps the beneficial results are induced by a mental condition which the music produces in the patient; or it may be due to the influence of vibration, motion acting directly upon the nerve centers, and it may be due to the combination of both of these influences. Science alone will be able to decide this.

Music is harmony, and harmony is concord or order, and since all forms of disease whether mental or physical are a condition of disorder, it may be that the effect of music is such that it harmonizes or orders the deranged mind or bodily organs. We know that musical sounds, not necessarily melodies, can produce joy or excitement and can soothe and calm people when they are well. It is then reasonable to expect music could become a potent factor in arousing or soothing a disordered state of mind or body.

Music is regarded as an aid to medicine in cases of nervous troubles, and might play an important part in preventing breakdowns caused by depression and overworked nerves. There is no question as to its sedative power in delirious cases; it has been known to induce a healthy refreshing sleep when opiates have proved useless; it has caused many an invalid to forget his pain; it has called color to the cheek, lively sparkle to the eye, and strength to the voice and the body when other stimulants have been ineffective. Music seems to reach the nervous system directly, for it often calls forth quicker response than do a change of scene or a dose of medicine.

It is a well-known scientific fact that music acts as a refreshing stimulant and restorative; it braces a depressed nervous system and produces a healthful effect. Professor Tarchanoff's apparatus for measuring the effect of musical vibrations in the body has shown that tired muscles regain their strength under the effect of bright, lively music, while sad music tends to weaken them still further. The effect of music upon the muscles is similar to its effect upon the heart, where often, with even the softest strains, the blood pressure rises, the heart action quickens and the respiration increases. Whether it acts upon the body directly by its action on the nerve centers or whether it acts indirectly by producing a cheery, healthy condition of the mind, science has still to investigate; but in this day and age no one will dispute the effect of the mental condition upon the physical condition of a person, so whether music acts directly, or through the mind, does not matter nearly so much as the fact that it does act. It now remains for science to discover the correct relation of music to disorders of the mind and body in order that the best results may be obtained.

Some theorists affirm "that every individual has a constitutional key-note, which responds to music harmonious to itself, just as an edifice trembles to sounds in its own particular key. Hence, health of body and of soul may be promoted by properly adapted music, for if the individual's key-note can be discovered, music that is in harmony with his organism may be found to suit his case and produce healthful results." All individuals differ: food that is nutritious for one person may not agree with another; medicine which cures some disorder, may not relieve that same trouble in all persons, and so with music, not all music affects all people similarly, and the individuality of the patient as well as his malady must be studied and the music must be wisely selected and skilfully applied in order to render it useful as a therapeutic agent. The Egyptians were the first nation to ascribe healing qualities to music; and the Persians were said to cure various diseases by the sound of a corresponding string upon the lute.

Physicians managing insane asylums all attest to the wholesome effect of music on their patients, and innumerable cases can be cited to prove its wonderful power for good. In many instances violent cases have been soothed and calmed by music; melancholy patients have been cheered to smile and become interested in their surroundings; taciturn, stolid men and women have been moved to speech and to tears, a very healthful sign with such patients. Insane patients who have been roused and benefited by music usually respond to its repeated stimulus and after musical treatment many have left the hospital cured. The results of musical treatment among the inmates of a certain asylum show that about one-third of the patients recover, and one-third are improved by the treatment, while the remaining third seem to derive no benefit at all. It is believed that a patient must have a natural love for music before it can be made to rouse his sympathies.

The wholesome, regenerative effect of music when made to accord with the temperament of the patients is fully acknowledged and appreciated by Dr. Drapes, an Irish alienist. He says, " Nothing cheers these patients or helps them forget their troubles in an equal degree to music. It transports them to another region for the time being, removes the cloud of depression, assuages grief, tranquilizes excitement, and rarely, if ever, produces the slightest ill effect. The position of music in the treatment of the insane is, and ought to be, a high one, and its importance can hardly be exaggerated."

In 1891 in London and later in New York musical guilds called St. Cecilia Guilds were formed for the purpose of furnishing music to inmates of asylums and infirmaries. The music was to be applied under the supervision of the physicians. Many good results are recorded of the services of these guilds, but owing to a lack of financial support both guilds failed to maintain themselves.

That music has a softening and refining influence over vicious children and young criminals has been observed by all who deal with these people, and it may be that if music were studied more carefully in its relation to all unfortunate children of mankind that its mission here is far more practical than we have yet known it to be.

It has been the aim of this chapter to cite some of the practical uses of music, to prove that music is not merely a pastime for idle moments, nor is its language the language of dreamers — excited men whose one passion in life is music. Music is a common language, common to all the nations of the world, loved and enjoyed by old and young, rich and poor. It acts as a socializing, refining element in a community and in the home, it lulls to sleep the child in its mother's arms and soothes the disordered mind of the invalid, it makes the busy man forget the cares of the day and creates an atmosphere of peace and joy, it is a solace and an inspiration to the ignorant peasant and to the reflective scholar. And all things that tend toward unifying a nation, toward making its people happier, tend toward the betterment of the race. If music were understood better, if parents and teachers would guide children to help them to interpret music, and would devote less time to technicalities, music would come to have a happier, deeper meaning to the child; his delight in good music would be akin to his pleasure in a good story. Parents owe it to their children to help them to understand and to enjoy what is good and beautiful in art, whether it be poetry, painting or music. One might almost as well ask what is the practical value of friendship as to ask what is the practical value of music. Each makes man happier, ennobles him, helps him to realize a higher intellectual, moral and spiritual standard. It is what the perfume is to the rose, it is what the song is to the bird, it is what love is to life. It cannot have a market value, it is beyond quotation, it is that which helps to make life worth while.

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